

THE ANNALS

OF THE

114654

AMERICAN ACADEMY

OF

POLITICAL AND SOCIAL SCIENCE

ISSUED BI-MONTHLY

VOL. XIX

JANUARY, 1902—MAY, 1902

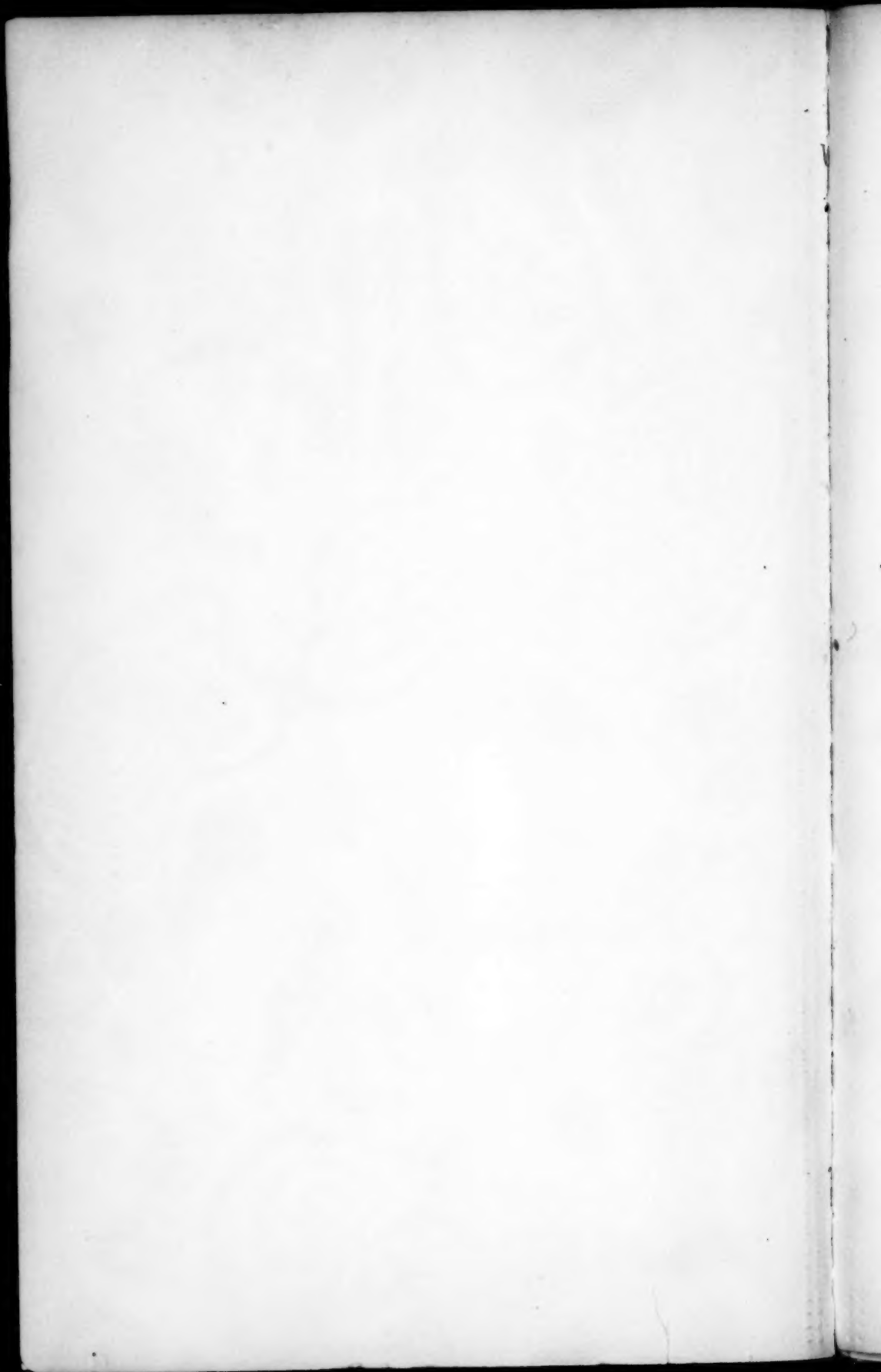
EDITOR : EMORY R. JOHNSON

ASSOCIATE EDITORS : SAMUEL McCUNE LINDSAY, JAMES T. YOUNG

PHILADELPHIA:

AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE

1902



CONTENTS

PRINCIPAL PAPERS

	PAGE
✓ AUSTIN, O. P. Our Trade with Hawaii and Porto Rico	377
BURCH, HENRY R. Conditions Affecting the Suffrage in Colonies	408
CROWELL, JOHN FRANKLIN. Present Status and Future Prospects of American Shipbuilding	46
✓ EDWARDS, CLARENCE R. Our Trade with Cuba and the Philippines	370
ELLWOOD, CHARLES A. Aristotle as a Sociologist . .	227
— FARQUHAR, A. B. The Manufacturer's Need of Reciprocity	185
— FOULKE, WILLIAM DUDLEY. Civil Service in Our New Dependencies	340
GLASSON, WILLIAM H. The National Pension System as Applied to the Civil War and the War with Spain	204
✓ IRELAND, ALLEYNE. Is Tropical Colonization Justifiable?	331
JOHNSON, EMORY R. The Isthmian Canal in its Economic Aspects	1
✓ JUDSON, W. V. Strategic Value of Her West Indian Possessions to the United States	383
KNAPP, MARTIN A. Government Ownership of Railroads	61
MEYER, B. H. Advisory Councils in Railway Administration	74
NEWCOMB, H. T. The Concentration of Railway Control	89
PASCO, SAMUEL. The Isthmian Canal Question as Affected by Treaties and Concessions	24

	PAGE
ROWE, L. S. Political Parties in Porto Rico	351
SEAGER, HENRY R. Professor Patten's Theory of Prosperity	239
WALKER, FRANCIS. The Taxation of Corporations in the United States	165
YOUNG, JAMES T. Colonial Autonomy	392

EDITORIALS

RESIGNATION OF DR. SAMUEL M. LINDSAY as President of the American Academy	256
RESIGNATION OF DR. HENRY R. SEAGER as Editor of THE ANNALS	432

PROCEEDINGS OF THE ACADEMY

ACADEMY NOTICES AND PROCEEDINGS	114, 272
---	----------

COMMUNICATIONS

LINCOLN, C. H. Manuscripts in the Library of Congress . . .	266
NERINCKX, ALFRED. The National Company of Light Railways in Belgium	108
SEAGER, H. R. Meeting of the American Economic Association	269
THORPE, FRANCIS N. What is a Constitutional History of the United States?	259

PERSONAL NOTES

Adams, Thomas Sewell, 118.	Moore, Frederick W., 117.
Bellom, Maurice, 277.	Munro, Dana Carleton, 436.
Hoskins, James Dickason, 117.	Rutter, Frank R., 435.
Ireland, Alleyne, 433.	Seager, Henry R., 433.
Johnson, Alvin Saunders, 434.	Taylor, Henry Charles, 118
Lindsay, Samuel McCune, 276.	West, Max, 435.
McLean, J. S., 436.	

CONTENTS

v

BOOK DEPARTMENT

CONDUCTED BY JAMES T. YOUNG AND FREDERICK A. CLEVELAND

REVIEWS

	PAGE
AULARD, A. Histoire Politique de la Révolution Française.— <i>Wm. E. Lingelbach</i>	130
BALDWIN, JAMES MARK, Edited by. A Dictionary of Philosophy and Psychology.— <i>William Romaine Newbold</i>	132
Beiträge zur neuesten Handelspolitik Deutschlands, herausge- geben von Verein für Socialpolitik.— <i>Emory R. Johnson</i>	453
BIRKMEYER, KARL. Encyklopädie der Rechtswissenschaft.— <i>C. W. A. Veditz</i>	454
BRADLEY, CHARLES. Miscellaneous Writings of the Late Hon. Joseph P. Bradley, Associate Justice of the Supreme Court of the United States.— <i>Robert P. Reeder</i>	457
CHEYNEY, EDWARD P. An Introduction to the Industrial and Social History of England.— <i>John L. Stewart</i>	458
CLARK, JOHN BATES.—The Control of Trusts.— <i>Frank E. Horack</i>	289
CROZIER, JOHN BEATTIE. History of Intellectual Development on the Lines of Modern Evolution.— <i>Wm. E. Lingelbach</i>	465
FAIRLIE, JOHN A. Municipal Administration.— <i>Carl Kelsey</i>	290
FORBUSH, WILLIAM BYRON. The Boy Problem: A Study in Social Pedagogy.— <i>Carl Kelsey</i>	460
GIDDINGS, FRANKLIN HENRY. Inductive Sociology.— <i>Charles A. Ellwood</i>	134
HENDERSON, CHARLES RICHMOND. Introduction to the study of the Dependent, Defective and Delinquent Classes, and of their Social Betterment.— <i>J. E. Hagerly</i>	136
HOBSON, J. A. The Social Problem.— <i>Samuel G. Smith</i>	137
KIDD, BENJAMIN. Principles of Western Civilization.— <i>Simon N. Patten</i>	461
LEVASSEUR, E. History of the Working Classes and of Industry in France Before 1789.— <i>J. G. Rosengarten</i>	138
DE MORTILLET, ADRIEN; DE MORTILLET, GABRIEL. Le Pré- historique, Origine et Antiquité de l'Homme.— <i>C. W. A. Veditz</i>	463
PHILLIPS, W. ALISON. Modern Europe. 1815-1899.— <i>Wm. E. Lingelbach</i>	465
ROBERTS, PETER. The Anthracite Coal Industry.— <i>Edward Sherwood Meade</i>	292

	PAGE
ROWNTREE, B. SEEBOHM. Poverty, A Study of Town Life.— <i>Carl Kelsey</i>	471
STEFFEN, GUSTAV F. Studien zur Geschichte der Englischen Lohnarbeiter.— <i>Ernest L. Bogart</i>	295
SYKES, JOHN F. J. Public Health and Housing.— <i>Ernest L.</i> <i>Bogart</i>	473
TRANSPORTATION. Report of the United States Industrial Com- mission.— <i>Walter E. Weyl</i>	474
UN SIÈCLE, MOUVEMENT DU MONDE DE 1800 À 1900. Publié par les soins d'un comité sous la présidence de Monseigneur Péchenard.— <i>C. W. A. Veditz</i>	481
WELSH, HERBERT. The Other Man's Country: An Appeal to Conscience.— <i>H. Parker Willis</i>	139

NOTES

ADAMS, GEORGE BURTON, Edited by. Select Documents of English Constitutional History	119
ANDLER, CHARLES. Le Manifeste Communiste. (Bibliothèque Socialiste. Nos. 9 and 10)	438
BABINGTON, J. A. The Reformation: A Religious and Historical Sketch	437
BATESON, MARY, Edited by. The Charters of the Borough of Cambridge	284
RAYLES, GEORGE JAMES. Woman and the Law	278
BELLOC, HILAIRE. Robespierre, A Study	437
BLACKMAR, F. W. Life of Charles Robinson, the First Free- state Governor	278
BLAUVELT, MARY TAYLOR. The Development of Cabinet Gov- ernment in England	438
BLUM, LÉON. Les Congrès Ouvriers et Socialistes Français. (Bibliothèque Socialiste. Nos. 6 and 7)	438
BOURGIN, HUBERT. Proudhon. (Bibliothèque Socialiste. No. 5) .	438
BOURINOT, SIR JOHN. Constitutional History of Canada	119
BOUTMY, ÉMILE. Eléments d'une Psychologie Politique du Peuple Américain	439
BRY, GEORGES. Histoire Industrielle et Économique de L'Angleterre	440
BUECHNER, LOUIS. L'Aurore du Siècle	440
BURNLEY, JAMES. Millionaires and Kings of Enterprise	278
BURTON, THEODORE E. Financial Crises and Periods of Indus- trial and Commercial Depressions	441

CONTENTS

vii

	PAGE
CHAMBERLAIN, ALEXANDER FRANCIS. The Child, A Study in the Evolution of Man	441
COLQUHOUN, ARCHIBALD R. The Mastery of the Pacific . . .	442
Congrès International des Habitations à Bon Marché	279
CORNISH, F. WARRE. Chivalry	442
COTES, KENELM D. The Social and Imperial Life of Britain .	120
DECHESNE, LAURENT. L'Évolution Économique et Sociale de L'Industrie de la Laine en Angleterre	120
DELBRIDGE, C. L. Comprehensive Interest Tables	279
DURKHEIM, ÉMILE. De la Division du Travail Social	279
ELIASON, ADOLPH OSCAR. The Rise of Commercial Banking Institutions in the United States	443
EMPIRE REVIEW	120
FAGNIEZ, GUSTAVE. Documents Relatives à l'Histoire de l'Industrie et du Commerce en France	443
FOLKS, HOMER. The Care of Destitute, Neglected and Delin- quent Children	443
GEISER, KARL FREDERICK. Redemptioners and Indentured Servants in the Colony and Commonwealth of Pennsylvania	279
GOOCH, G. P. Annals of Politics and Culture	121
GORST, HAROLD E. The Curse of Education	280
GREENIDGE, A. H. J. Roman Public Life	121
GREIG, W. History of Montreal	444
HALÉVY, DANIEL. Essais sur le Mouvement Ouvrier en France	281
HAPGOOD, NORMAN. George Washington	281
HART, ALBERT BUSHNELL, Edited by. American History Told by Contemporaries. Vol. iv	121
HICKS, FREDERICK CHARLES. Lectures on the Theory of Economics	445
HIRSCH, MAX. Democracy versus Socialism	281
HOSMER, JAMES K. A Short History of the Mississippi Valley	281
HUBBARD, G. H. The Why of Poverty	281
HULBERT, ARCHER BUTLER. The Old National Road—A Chapter on American Expansion	282
ILBERT, SIR COURTENAY. Legislative Methods and Forms . .	122
JAMES, EDMUND J. Municipal Administration in Germany as seen in the Government of a Typical Prussian City, Halle a. S.	123
KILBOURN, KATHERINE R. Money-making Occupations for Women	123
KOVALEVSKY, MAXIME. Russian Political Institutions	445
LACOMBE, PAUL. La Guerre et l'Homme	124

	PAGE
LAPEYRE, PAUL. Catholicisme Social	446
LAUGHLIN, JAMES LAURENCE. Elements of Political Economy	446
LEONARD, JOHN W., Edited by. Who's Who in America	282
LINCOLN, CHARLES H. The Revolutionary Movement in Penn- sylvania	283
LOWERY, WOODBURY. The Spanish Settlements Within the Present Limits of the United States	125
MAITLAND, F. W., Edited by. The Charters of the Borough of Cambridge	284
MARCHANT, J. R. V. Commercial History	284
MARK, H. T. Individuality and the Moral Aim in American Education	126
MAY, R. E. Die Wirtschaft in Vergangenheit, Gegenwart und Zukunft	285
MCCARTHY, CHARLES H. Lincoln's Plan of Reconstruction	446
MÉTIN, ALBERT. Le Socialisme sans Doctrines. La Question Agraire et la Question Ouvrière en Australie et Nouvelle- Zélande	447
MONROE, PAUL. Source Book of the History of Education for the Greek and Roman Period	286
MORISON, M, Compiled by. The Time Table of Modern History. A. D. 400-1870	286
NICHOLSON, J. SHIELD. Principles of Political Economy	448
PERRY, FREDERICK. St. Louis, The Most Christian King	127
PETERS, MADISON C. The Jew as a Patriot	448
RAINY, ROBERT. The Ancient Catholic Church	449
REDLICH, JOSEF. Englische Lokalverwaltung	127
REID, W. MAX. The Mohawk Valley	287
RIIS, JACOB. A Ten Years' War	128
ROLOFF, GUSTAV. Die Kolonialpolitik Napoleons I	128
ROOSEVELT, THEODORE. Rough Riders	449
ROUTIER, GASTON. L'Industrie et le Commerce de l'Espagne	449
SCHAFER, JOSEPH. Government of the American People	451
SCHELL, WILLIAM G. Is the Negro a Beast?	450
SHIMMEL, L. S. Border Warfare in Pennsylvania During the Revolution	450
SHWANK, JAMES M. Annual Report of the American Iron and Steel Association	450
SMITHSONIAN INSTITUTION, Annual Report of the Board of Regents	451
STEINER, BERNARD C. Western Maryland in the Revolution	451
STEPHENS, H. MORSE, Edited by. Select Documents of English Constitutional History	119

CONTENTS

ix

	PAGE
STRAUS, OSCAR S. Origin of Republican Form of Government in the United States of America	128
STRONG, FRANK. Government of the American People	451
TERRY, BENJAMIN. A History of England	287
THORNDIKE, EDWARD LEE. Notes on Child Study	129
TROLLOPE, MRS. Domestic Manners of the Americans (1832)	287
WEBB, MRS. SIDNEY, Edited by. The Case for the Factory Acts	288
WEYL, WALTER E. The Passenger Traffic of Railways	451
WHITE, ARNOLD. Efficiency and Empire	129
WINDELBAND, W. History of Philosophy	288
WISSER, JOHN P. The Second Boer War	452
YOUNG, JOHN P. Protection and Progress	453

NOTES

I. MUNICIPAL GOVERNMENT

CONDUCTED BY L. S. ROWE AND WILLIAM H. ALLEN

Alabama.—Constitutional Convention	143
Buenos Aires.—Municipal Statistics	152
Buffalo.—Civil Service Commission	491
Chicago.—Election.—Bureau of Statistics and Municipal Library	485
Cincinnati	149
Civic Instruction in Secondary Schools	305
Duluth.—Board of Water and Light Commissioners	494
Idaho.—Woman Suffrage and Municipal Politics	147
League of American Municipalities	143
Montreal.—General Responsibility for Local Improvement	497
New Jersey State Civic Federation	495
New Orleans.—Water Franchise Forfeited	493
Ontario.—Municipal Government	306
Philadelphia.—Voters' Union	148
Municipal League	490
Pittsburg.—Ripper Bill.—"L" Roads	299
Providence.—Tramway Transfer Tickets.—Home Rule	303
Quebec, Province of.—Minor Municipalities	496
San Francisco.—Charter of 1900.—Bond Issue.—Initiative	150
Trenton.—Non-Partisan Police Department	304
Utah.—Woman Suffrage and Municipal Politics	145

II. SOCIOLOGY

CONDUCTED BY J. E. HAGERTY

	PAGE
Italians of Columbus: A Study in Population	154
National Prison Congress	153
Shakers in Ohio	499
Social Settlement, Columbus, Ohio	505
Sociology at the Paris Exposition of 1900	500

III. PHILANTHROPY, CHARITIES AND SOCIAL PROBLEMS

CONDUCTED BY EDWARD T. DEVINE

Associated Charities of Boston	313
Charities and Public Efficiency	513
Child Labor in Illinois and Other States	312
Classification of Exhibits at the St. Louis Fair	514
Cuban Conference	309, 517
Decrease of Crime in England	309
Free Lodgings in Chicago	313
Hull House	515
Institute for Medical Research	313
Juvenile Courts	311
Legislation in New York	516
Lodgings for the Homeless and Repression of Vagrancy. In Chicago. In Boston. In New York	510
Mentally Defective Prisoners	310
National Prison Congress	310
Nurses' Congress	313
Outdoor Relief in Buffalo	514
San Francisco Directory	309
Secretaryship of the National Conference	308
Social Workers in Municipal Office	309
State Board of Charities and Correction, New	309
State Conferences	308
Study of Infectious Diseases	514
Supervision of Child-Saving Agencies in Ontario	517
Visiting Nurse Societies	515
Warfare Against Consumption	509

CONTENTS

xi

IV. COLONIES AND COLONIAL GOVERNMENT

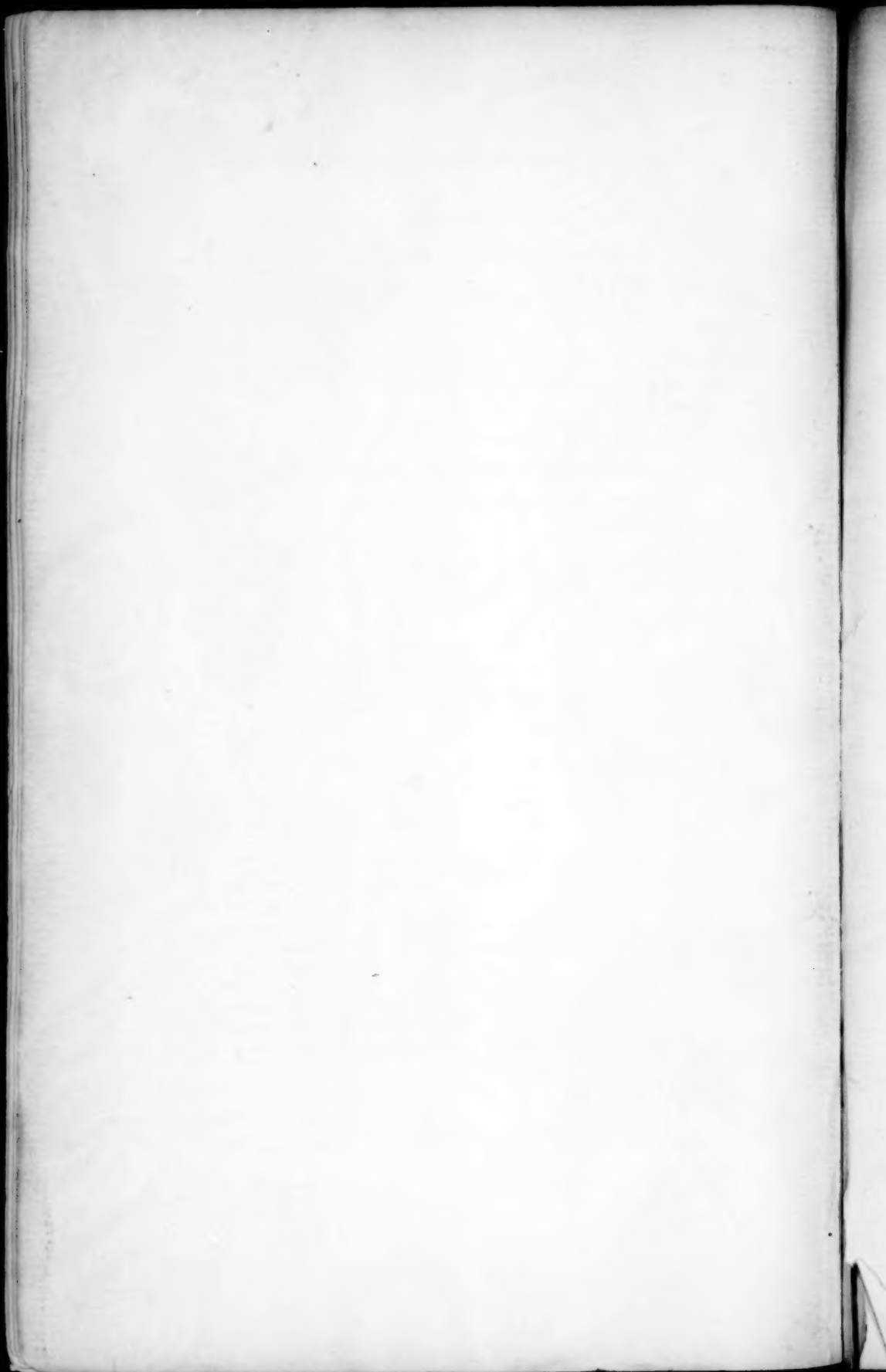
CONDUCTED BY JAMES T. YOUNG

	PAGE
Cuba	519
France	329
Germany	328
Hawaii	519
Porto Rico	326
Proposed Changes in German Colonial Government	162
Tax Decision, New	160

V. INDUSTRY AND COMMERCE

CONDUCTED BY EDWARD SHERWOOD MEADE

Florists' Hail Association	324
"Short" Selling	322
Some Features of Department Store Management	320
Strike and its Settlement, A	317



JAN.

1902

ANNALS
OF THE
AMERICAN ACADEMY
OF
POLITICAL AND SOCIAL SCIENCE

THE ISTHMIAN CANAL IN ITS ECONOMIC
ASPECTS.

The Isthmian Canal Commission undertook the prosecution of three lines of investigation: (1) The engineering problems and cost of construction; (2) the nature of the political rights and corporate concessions, of which the United States must secure possession in order to construct and control an isthmian canal, and the cost of acquiring those rights; and (3) the industrial, commercial and military value of an interoceanic canal. In the report recently submitted by the Commission to the President and by him to Congress the results of each of these three inquiries are presented with full detail.

The engineering investigation made by the Commission comprises a careful study of the Nicaragua and Panama routes and an examination of the entire Isthmus of Darien east of Panama. For each of the Nicaragua and Panama routes the Commission secured all the information requisite to the preparation of detailed estimates of the costs of constructing a canal thirty-five feet in depth and with a bottom width of 150 feet. The surveys on the Isthmus of Darien showed that the Atrato routes were impracticable and that the only lines worthy of consideration—those along the San Blas and Caledonia locations—required the use of tunnels. The neces-

(1)

sity for tunnels on the Darien routes eliminated those lines from study and restricted the later engineering work of the Commission to investigations of the Nicaragua and Panama routes.

The scope of the Commission's investigation of the rights, privileges and franchises held on the American isthmus by corporations and the nature of the political privileges which the United States must necessarily secure in order to construct and control an isthmian canal are presented by Hon. Samuel Pasco in a paper published in another part of this issue of the ANNALS.

The canal from a military point of view has been discussed by Colonel Peter C. Hains, one of the military members of the Commission, in the May, 1901, issue of the ANNALS. The conclusions reached by the Commission, and published in its final report, are similar to the views set forth by Colonel Hains in his ANNALS paper.

The detailed investigation of the canal from the point of view of its industrial and commercial value to the United States and other countries is presented in one of the volumes of the Commission's report, Appendix NN. The main conclusions reached as the result of this investigation are summarized briefly in the part of the Commission's report to which the signatures of the members are attached.

After calculating carefully the advantages and disadvantages of the Nicaragua and Panama routes from an engineering point of view, and after considering the nature of, and cost of acquiring, the concessions and political rights which the United States would have to obtain in building a canal by each of the routes, and after weighing the relative commercial advantages of the two routes, the Commission reported in favor of the adoption of the Nicaragua route. As stated in the last paragraph of its final report, the conclusion of the Commission was:

"After considering all the facts developed by the investigations made by the Commission and the actual situation as it now stands,

and having in view the terms offered by the New Panama Canal Company, this commission is of the opinion that 'the most practicable and feasible route for an isthmian canal, to be under the control, management and ownership of the United States,' is that known as the Nicaragua Route."

The purpose of the present discussion is to deal in a summary and generalized manner with the relation of the canal to the industries and commerce of the United States, and to state the main facts ascertained by the investigations made to ascertain the available and prospective traffic of the proposed waterway and to determine the effects which tolls would have upon the use of the canal by the commerce of Europe and the United States with various sections of the Pacific. The study of tolls was made for the purpose not only of determining their effect upon the volume of traffic using the canal but also with the object of considering the canal in its financial aspects.

The Isthmian Canal and American Industries.

The construction of a canal across the American isthmus is proposed mainly for two reasons—that it will strengthen the efficiency of the American navy, and that it will facilitate commercial intercourse both between the eastern and western seaboard of the United States and between each of those sections and those foreign countries adjacent to the Atlantic or Pacific with which, under present conditions, commerce is seriously restricted because of the great length of existing water routes. The canal will affect American industries by facilitating our foreign and domestic trade.

When we consider that our total foreign trade is second only to that of the United Kingdom and that our exports already outvalue those of that great commercial nation, that our exports of manufactures have doubled in five years and will soon amount to half a billion dollars annually, we can appreciate the growing magnitude of our foreign trade; and when we further consider that the industries which

create this great surplus for foreign trade represent the activities of but 76,000,000 people, and that our population will reach 100,000,000 by the time an Isthmian canal can be opened for commerce, the reason becomes manifest why the American people have a wide-spread and well-nigh unanimous interest in the early execution of that great work.

The costs of manufacturing iron and steel products and many other commodities are already lower in many parts of the United States than they are in Europe, and further economies in production are certain to be introduced during the coming ten or fifteen years. Having this present and prospective superiority over our greatest competitors, in the expenses of production, the future growth of our foreign trade becomes primarily and essentially a question of securing cheaper transportation. When the American manufacturer has the advantage over his competitor, both in the costs of production and in the expenses of transportation, he will surely control such foreign markets as he may require for the disposition of his products.

The two seaboard of the United States average over 13,000 nautical miles apart by the shortest ocean route—the one followed by steamers through the Straits of Magellan. Steamers take sixty days to make the voyage between New York or Philadelphia and the Pacific coast of our country, and sailing vessels require fully twice that time. The isthmian canal will shorten the ocean distances between our Eastern and Western States between 8,000 and 9,000 nautical miles, to less than 40 per cent of the length of the present routes, and will bring the countries of the eastern half of the Pacific Ocean nearer to the eastern part of the United States than to Europe.

The following detailed table shows the distances for full-powered steamers between the principal Atlantic and Pacific ports for each of the Panama and Nicaragua routes. The distances are those by arcs of great circles and by the actual

Distance from American and European Atlantic Ports to Pacific Ports, via the Nicaragua and Panama Canals.

From	Via	To Port Townsend via San Francisco.	To San Francisco.	To Guayaquil.	To Callao.	To Iquique.	To Valparaiso.	To Coronel.	To Yokohama via San Francisco.	To Shanghai via San Francisco and Yokohama.	To Manila via San Francisco and Yokohama.	To Sydney via Tahiti.	To Melbourne via Tahiti ² and Sydney.	To Wellington via Tahiti.
New York—Nicaragua	5,696	4,921	3,246	3,751	4,393	4,638	5,161	9,457	10,597	11,297	9,676	10,251	8,716
Panama	5,074	5,299	2,864	3,540	4,021	4,630	4,838	9,835	10,885	11,585	9,852	10,427	8,802
Norfolk—Nicaragua	5,485	4,710	3,035	3,540	4,162	4,767	4,969	9,247	10,297	10,997	9,466	10,041	8,595
Panama	5,872	5,097	2,662	3,157	3,819	4,438	4,636	9,634	10,684	11,384	9,650	10,225	8,690
Charleston—Nicaragua	5,276	4,501	2,826	3,331	3,973	4,558	4,741	9,037	10,087	10,787	9,451	10,026	8,491
Panama	5,673	4,898	2,463	2,958	3,600	4,229	4,437	8,344	9,394	10,094	8,733	9,308	7,773
Fort Tampa—Nicaragua	4,753	3,978	2,303	2,808	3,450	4,035	4,218	8,514	9,564	10,264	8,733	9,308	7,773
Panama	5,128	4,353	2,068	2,593	3,255	3,864	4,072	8,069	9,119	9,819	8,451	9,026	7,491
New Orleans—Nicaragua	4,803	4,118	2,443	2,948	3,590	4,175	4,358	8,654	9,704	10,404	8,773	9,348	7,813
Panama	5,177	4,468	2,263	2,758	3,420	4,029	4,237	8,234	9,284	9,984	8,513	9,088	7,553
Galveston—Nicaragua	4,996	4,221	2,516	3,051	3,693	4,278	4,461	8,757	9,807	10,507	8,956	9,531	8,016
Panama	5,574	4,799	2,364	2,858	3,500	4,129	4,338	9,335	10,385	11,085	9,352	9,927	8,392
Liverpool—Nicaragua	8,426	7,651	5,975	6,481	7,123	7,768	7,891	12,187	13,237	13,937	12,406	12,981	11,446
Panama	8,813	8,038	5,603	6,098	6,760	7,369	7,577	12,574	13,624	14,324	12,591	13,166	11,631
Hamburg—Nicaragua	8,943	8,168	5,693	6,198	6,860	7,469	7,682	12,704	13,754	14,454	12,923	13,498	11,963
Panama	9,242	8,467	6,032	6,537	7,189	7,798	8,006	13,003	14,053	14,753	13,020	13,595	12,060
Antwerp—Nicaragua	8,664	7,889	6,214	6,719	7,361	7,966	8,199	12,425	13,475	14,175	12,644	13,219	11,684
Panama	8,963	8,188	5,783	6,288	6,910	7,519	7,727	12,724	13,774	14,474	12,741	13,316	11,781
Bordeaux—Nicaragua	8,414	7,639	5,964	6,469	7,111	7,666	7,879	12,175	13,225	13,925	12,394	12,969	11,434
Panama	8,713	7,938	5,503	5,998	6,660	7,269	7,477	12,474	13,524	14,224	12,491	13,066	11,531
Gibraltar—Nicaragua	8,148	7,373	5,698	6,203	6,845	7,454	7,662	11,909	12,959	13,659	12,128	12,703	11,168
Panama	8,447	7,672	5,237	5,723	6,394	7,003	7,211	12,268	13,318	14,018	12,225	12,800	11,265

¹ Via Honolulu adds 374 miles for Nicaragua and 252 for Panama.

² Omitting Tahiti reduces voyage from Brito by 52 miles.

³ Voyage from Brito to Sydney by Wellington is 232 miles less than by way of Tahiti. From Panama it is 405 miles less.

⁴ Voyage from Brito to Wellington direct is 185 miles shorter than via Tahiti, and from Panama it is 338 miles shorter.

routes which vessels will naturally take. It was believed that the length of commercial routes really taken by ships would be more instructive than the length of the shortest possible sailing lines between Atlantic and Pacific termini. The calculations were made for the Commission by the United States Hydrographic Office and have been twice carefully checked.

Europe is now nearer by water routes to all parts of the Pacific, than are the people of the United States, whose commercial connections are with Atlantic and Gulf ports. Even the east coast of South America, south of the Equator, is nearer to Western Europe than to the manufacturing sections of the United States. The Suez Canal has brought Europe nearer than the United States is to the East Indies, China, Japan and Oriental countries generally, and until an American canal route is opened, the manufacturers and most of the exporters of this country will find their lower costs of production largely, if not quite, offset by the greater expenses of transporting their commodities to many of their most promising markets.

A large trade with Western South America, Oceania and Asia has come to be not only advantageous but almost essential to the industries of the United States. The nitrate of soda from Chile, the cacao and the forest products from tropical America, the sugar from Hawaii, the hemp from Manila, the wool, hides and gums from Australia and New Zealand, the raw silk from Japan and China are examples of the raw materials of which large and rapidly growing quantities are required by American manufacturers. Furthermore, the countries supplying these raw materials now furnish a valuable market for machinery and manufactures, and with the development of their natural resources, and the modernization of their industrial processes and social life, their purchases will largely and continuously increase.

Although, until an isthmian canal has become available, the United States must compete for most of the Pacific trade

under great disadvantages, our present commerce with the Pacific makes no mean showing either as to volume or rate of growth. During the decade, 1890 to 1900, the value of exports to Japan, China and Asiatic Russia increased from less than twenty million to nearly seventy million dollars, and our exports to Australia, Hawaii and the Philippines from sixteen million to forty-three million dollars; the total exports to those countries having risen from \$36,157,089 to \$108,304,911, a gain of 200 per cent in ten years.

Our trade with the west coast of South America is not large, but ought to be and will become so as soon as the people of that section are able to secure our cotton goods, mining and agricultural machinery, and general manufactures directly and cheaply. Nearly one-third of the tonnage that would make use of an isthmian canal, if it were opened to-morrow, would be contributed by the trade of the western part of South America. This large commerce is now nearly all in the hands of Great Britain and Germany, but such will not long continue to be the case when ocean vessels can pass the American isthmus. Western South America is one of the few sections of the world that will always send us more tons of cargo than we shall ship to it. We require its raw materials in large quantities; it needs our manufactures. The trade will be reciprocal and highly valuable for both parties to the exchange.

Statistics of commerce are often less instructive than the experiences of men engaged in foreign trade. A New York firm, whose manufacturing plants are in New Jersey, stated in a letter to the Canal Commission: "Our business in the Sandwich Islands has been very large in the past few years,—at the rate of over one-half million dollars per year. This could undoubtedly be increased, and at the same time the sugar, and other industries, there, fostered, if we were not handicapped by the long railroad haul across the country." Thus one American firm, of whom comparatively few Americans have ever heard, is now shipping annually to little Hawaii over half a million dollars worth of goods.

The Commission received a letter from a Maryland firm stating that the firm at the time of the writing of the letter was filling a foreign order for 70,000 tons of rails for the Trans-Siberian Railway, and also an order for 30,000 tons of rails to be sent to the government of Victoria, Australia.

One Philadelphia firm shipped two full vessel cargoes of locomotives to China and Siberia in 1898. In 1899 another full cargo of engines was shipped to the same countries, and in 1900 a fourth full cargo was sent—156 locomotives sent by one Philadelphia firm to China and Siberia in a little more than two calendar years! Facts like these show the relation of the Pacific trade to the future industrial progress of the United States.

A brief reference to the manner in which the canal will affect the industries and commerce of different parts of the United States,—the Pacific slope, the Southern States, the eastern section and the central west, will reveal some of the more important relations of the waterway to the economic interests of our country.

The typical products of the Pacific slope are wheat, barley, beet sugar and hops, lumber and shingles, fruit and vegetables of many kinds, cattle, hides, and wool, and the articles obtained from the extensive river and marine fisheries,—that is to say, the west coast produces foods and the materials of industry. Some wheat flour, lumber and canned foods are sold in Oceania and trans-Pacific countries, but the largest market for all the west coast products is in Europe and the manufacturing sections of the eastern half of the United States. With the exception of the great Cordilleran Plateau, or Rocky Mountain section of our country, the Pacific coast region is the most geographically isolated portion of the United States, and will remain so until it has secured cheap water transportation to its natural markets. In spite of the great economies that have been effected during the past twenty years in the costs of moving freight by rail, the volume of bulky freight that can be profitably hauled

over high mountains to markets 2,000 to 3,000 miles distant is small. The evidence obtained by the Canal Commission on this point is extensive, and was obtained directly from shippers and railway officials.

The west coast producers are already feeling the competition of Argentine and other rival sections and are extremely desirous of securing cheaper and speedier access to the North Atlantic. The people of the Pacific States, moreover, are buyers as well as sellers, and they and the eastern manufacturers from whom they buy find the existing freight costs a heavy burden and a serious business handicap.

In order to secure information regarding the effect which the proposed waterway would have upon the industries and commerce of the southern, central-western, and eastern sections of the United States, a committee of the Isthmian Canal Commission went to most of the important seaports from Portland, Maine, to Galveston, Texas. The larger centers of the iron and steel manufactures, and such industrial cities as Cincinnati, Detroit, Indianapolis, Chicago, Milwaukee and St. Louis were also visited. Conferences were had in twenty-nine cities with the chambers of commerce or corresponding societies of business men. Special reports were prepared by the commercial organizations in these and other cities and an extensive correspondence was carried on with various classes of business men in all parts of the country. It is believed that the knowledge secured in this manner gave the committee something more than statistical or descriptive information concerning American industries. It certainly gave the committee a very strong impression of the tremendous producing capabilities of the people of this country, and of the large results that will follow the cheapening of transportation by opening a highway for commerce across the American isthmus.

Throughout American history the exports from the Southern states, the cotton, tobacco, lumber and naval stores, have constituted a large part of the tonnage of our foreign com-

merce; and latterly phosphate, coal, iron and steel, and general manufactures have made an important addition to the outbound trade of that section. Most of these commodities are bulky and require the use of a large tonnage of shipping for their transportation. The products of the South find their present foreign market mainly in Europe, but they are desired in greater or less degree by nearly all countries, those of the Pacific Ocean, as well as those of the Atlantic. Because of the geographical position of the South, its exports are largely excluded from the markets of the Pacific. The position of the South as regards Pacific trade is very similar to that of the west coast of the United States as regards its commerce with Atlantic countries.

The canal will benefit the cotton industries of the South by giving the American staple a larger and more profitable trade in the Japanese market, where there is a keen competition with East Indian cotton; and it will also greatly facilitate the exportation of cotton goods to Western South America, Asia and Oceania where Great Britain and Germany now do a large business. The Southern mills are making great progress in cotton manufacturing, over 5,000,000 spindles are now running in those mills, and it is predicted by the commercial organizations of Charleston that North and South Carolina, whose annual crop of raw cotton is about one and one-half million bales, "will within a period of five years spin more cotton than they grow." The cloth made in the South is admirably adapted to the Pacific trade, and the Southern mill owners are desirous of a short route to Pacific markets.

The iron industries of the South will send through the canal to South America, Hawaii, California and trans-Pacific countries large quantities of such articles as iron pipe, engines, mining and agricultural machinery and steel wire. One of the large iron and steel manufacturing firms of the United States, whose business, according to its reports, amounts to from \$35,000,000 to \$40,000,000 annually, says

that "It is looking forward to a large export business in the near future with the different colonies of the United States and with South America, Asia, Africa and Europe." This firm believes that the Birmingham, Alabama, district "is destined to become the principal manufacturing centre in the United States for the export trade in iron and steel." . . . "The opening of the isthmian canal would be of incalculable benefit to us in increasing our facilities for export business, and would warrant the development of our Southern property to the fullest extent. We are positive that the markets of the world can be reached and supplied with our finished product (especially from the Southern district)."

The manufacture of machinery, tools, implements and the great variety of articles made from iron and steel is carried on mainly in the states north of the Ohio and Potomac and the total effect of the canal upon the iron and steel industries will be even greater in the North than in the South. Everybody realizes that the opening up of the undeveloped countries of the Pacific Ocean will require vast amounts of iron and steel manufactures, and when a canal has been constructed the people of the United States will secure a very large share of that trade. What is now being accomplished in spite of the present high costs of transportation is but an earnest of the future.

Besides aiding the cotton and iron and steel industries of the Southern states, the canal will open up a large market for their coal, lumber, naval stores and phosphate rock. The coal will be required by the vessels using the canal, and in the coaling stations of the eastern part of the Pacific Ocean in tropical and south temperate latitudes, and also for industrial purposes along the west coast of Central and South America. This exported coal will be mined not only in Alabama, but also in the northern bituminous fields of Pennsylvania and West Virginia, which enjoy especially cheap transportation to New Orleans by the Ohio and Mississippi rivers. The Southern states now send large quantities of lumber to the

eastern coast of South America, and as soon as a canal has been opened they will ship to the west side of that continent and to other Pacific sections. The hardwood and yellow pine lumber of the South will be required in the development of the resources of the South American and other Pacific countries, and the phosphate fertilizers of Florida, South Carolina and Tennessee will be exported to Japan and to countries where agriculture is carried on by the intensive culture that goes with irrigation.

The reference previously made to the Pacific business of a New York, a Philadelphia and a Maryland firm partially illustrates the manner in which the canal will affect the industries of the eastern part of the United States. This part of the United States is intersected in the proposed waterway chiefly because it wants to get its surplus manufactures to Pacific markets and exchange them for foods and raw materials. Since the opening of the Suez Canal, Europe has had such an advantage over our Eastern States in reaching Pacific markets that American manufacturers located in or having rail connections with our Atlantic seaports, find difficulty in competing with their trans-Atlantic rivals for the trade of Australia, Oceania, and the Orient. The Philadelphia Board of Trade and Maritime Exchange state in a joint report which they prepared for the Isthmian Canal Commission, that the canal will assist "our Philadelphia merchants to enter into more effective competition with the nations of Europe which are now enabled to underbid us in the far east, by reason of the more economical and expeditious transportation which their merchants enjoy by the Suez Canal Route." What is true of Philadelphia is true of the other manufacturing or commercial centers in the Eastern States.

Information, in considerable detail, regarding the present trade of the central west with Pacific markets was secured for the Commission by commercial organizations in Cleveland, Cincinnati, Indianapolis, Chicago and St. Louis. In

each of these cities the leading association of business men addressed to its members a letter of inquiry regarding the nature and the volume of the commodities imported and exported, the routes now employed, and the manner in which an isthmian canal would affect the routes of shipment and the development of trade. The replies received showed the existence of a large exportation of manufactures from the central part of the United States to Pacific countries. American manufacturing activities are rapidly spreading throughout the central states and the business men of that section are hardly less interested in securing ready connection with the Pacific than are the men whose plants are located nearer tide water.

A brief reference, taken from Appendix NN of the Commission's final report, to the information received from Chicago will illustrate the relation of the canal to the central west generally.

In the city of Chicago a great variety of manufacturing industries is carried on, and shipments are made to all the countries of the Pacific. Railway materials and mining and agricultural machinery, however, are especially important, mining machinery being sent to all parts of the world, wherever mining operations are carried on. The foreign trade of one Chicago firm engaged in the manufacture of mining machinery amounts to 15,000 tons annually. The agricultural machinery manufactured in and about Chicago is now shipped to the west coast of South America, to Eastern Siberia, and to various parts of Australasia. The Australasian trade of one firm in 1900 amounted to 11,000 tons. The shipments of this firm and presumably of others of that part of the country are made by way of New York, except on rare occasions, when, for the purpose of economizing time, the goods are routed by way of San Francisco or Vancouver. The rates from New York are usually much lower than those by way of the Pacific Coast. The time taken to get goods from Chicago to Australia varies from sixty-five to eighty-

five days, ten days of that time being required for getting the goods to New York City. The average time from Chicago to the Pacific Coast is eighteen days, and steamers from our Pacific Coast to Australasia take from twenty-two to twenty-eight days for the passage. The canal will shorten the distance by water from our Atlantic seaboard to Australasia by approximately 4,000 miles, and the distance to South America more than twice that number of miles.

The Canal and Shipbuilding.

The effect of the canal upon the business of building ships is worthy of special consideration. The canal is to be a highway for ocean commerce, and the results of the construction of the waterway will be felt first of all in the shipyards and merchant marine of this country. Information was received by the Canal Commission from forty American firms engaged in the building and operating of ships concerning the effect which the canal will have upon their business. The canal will unquestionably enlarge the coasting trade between the two seaboard of the United States and will cause a larger number of steamers to be built in American yards. Some of the vessels now employed in our coasting commerce will use the new waterway, but most of the ships for the trade between our two seaboard will consist of large freight steamers of modern design specially constructed for the trade. The evidence secured regarding the cost of building vessels seems to indicate that the enhanced demand for coasting vessels, together with the declining costs of material and the economies constantly being made in the labor expenses of construction, will during the next five or ten years enable Americans to build ships as cheaply as they can be launched on the Clyde.

The ownership and operation of ocean vessels by the large industrial firms as a part of their business, which has now in many cases come to include the entire process of obtaining

the raw materials, converting them into usable commodities and placing them in the hands of the consumer, whether foreign or domestic, will, to some extent, solve the question of our securing a larger merchant marine owned by Americans. Whether these vessels owned by American producers will be sailed under our flag, or under that of some foreign nation, will be determined by forces over which the isthmian canal will have but slight influence.¹

Some of the vessels employed in the commerce between our eastern seaboard and trans-Pacific countries will doubtless desire to participate in the interoceanic coasting trade of the United States, and in order to do so they will need to have the American registry. The action of Congress in restricting the commerce of Porto Rico and Hawaii with the United States to American ships suggests that our trade with the Philippines may also be limited to the vessels flying our flag. Should Congress take such action regarding the Philippines, a considerable share of the commerce of our Atlantic and Gulf ports with Japan and China will be carried in American vessels, because such ships would be able to participate in both our Philippine and foreign trade.

Any benefit conferred upon our shipbuilding industry will indirectly aid in the enlargement of the tonnage of American vessels engaged in the foreign trade of the United States. If the American purchaser could secure vessels at home as cheaply as in foreign yards one of the present reasons for registering his ships under the flag of some other nation would be removed. The future growth of the merchant marine under the flag of the United States will depend on numerous factors, some economic and some political. The construction of the isthmian canal will apparently affect that growth favorably.

¹ This and the two following paragraphs are taken from Chapter VIII, Appendix NN, of the Commission's final report.

The Canal and Railway Traffic.

The effect of the canal on the traffic of American railways is a question concerning which much has been said in all discussions of the isthmian waterway, and an endeavor was made by the writer to secure from shippers in different parts of the country and from the traffic officials of the railways as much information as possible on this important subject. As to the business of the railway systems in the territory between Chicago and New York and of those in the Southern states, the evidence is practically unanimous that the canal will be beneficial. As regards the effect of the new water route upon the railroads west of the Mississippi River the testimony is divided. That the canal will be a rate-controlling factor of wide-reaching importance is generally admitted, and naturally enough is feared by those railway officials who do not think the waterway will bring much new and compensating business to the railroads. Here is the crux of this question, will the canal make business for the trans-continental railroads? Some of the trans-continental officials say yes and some say no; but the experience of history has always been that the improvements in facilities for water transportation have resulted in the diversification and distribution of industry and added to the volume of business done. Some of the railway officials with whom I have conferred believe that this experience will be repeated by the opening of the isthmian waterway. A well-known president of one of the western roads expressed this thought clearly and concisely in his reply to the Commission's inquiry: "In a general way, my idea has been, and is, that the construction of the canal would be beneficial to the Mississippi valley, as well as to the Pacific coast. I incline to think cheaper transportation for heavy freights between the Mississippi valley and the coast would so increase general business that the railroads would get back, out of high-class freights and passengers,

more than they would lose by the loss of low-class traffic where time is not important."

Having outlined the relation of the canal to our industries and our shipping and transportation interests, there remain the questions of traffic and tolls to be considered.¹

Tonnage of Available Canal Traffic, 1899.

A detailed study of the foreign commerce of the United States for the year ending June 30, 1899, and of the commerce of Europe with the western part of the American continents during the calendar year 1899, has been made to ascertain the tons of cargo or *freight* and the net register tonnage of the *vessels* that might have passed through an isthmian canal had one been in existence. The cargo tonnage was found to amount to 6,703,608. This total does not include the comparatively small amount of freight that passed by water between our two seaboards, the statistics of which are not obtainable. It comprises 1,807,365 tons for the commerce between the eastern seaboard of the United States and Australasia, Oceania, Japan, China and Siberia; 1,629,387 tons for the trade between the west coast of the United States and Europe; and 3,266,856 for the commerce between Europe and western South and Central America, Western Mexico, Hawaii and British Columbia. It does not include any of Europe's trade with other parts of the Pacific.

The tonnage of the vessels that might have used an isthmian canal in 1899 was ascertained by an examination of the statistics of entrances and clearances kept by the United States and European countries. The vessel movements connected with the commerce of the eastern seaboard of the United States with Pacific America and with Australia, Oceania, the Philippines, Japan, China and Siberia, and

¹ The remainder of this paper is taken from the summary of the industrial and commercial value of the canal contained in the final report of the Isthmian Canal Commission.

the vessel movements between the western coasts of the American continents and the North Atlantic American and European ports were found to amount to 4,074,852 *vessel tons net* register, including 336,998 tons, for the commerce now crossing the Isthmus of Panama.

This total was compared with the result of a traffic investigation made by the New Panama Canal Company. The records of vessel movements kept by that company show a traffic for the calendar year 1899 of 3,848,577 tons net register for the commerce between Europe and the western coast of the American continent, between the Atlantic seaboard of America and trans-Pacific countries, and between the two American seaboards. The total obtained from the records kept by the Panama Company does not include any vessel tonnage for the commerce now crossing the isthmus. The addition of that tonnage, 336,998 tons, raises the total to 4,185,575.

In addition to this tonnage, which comprises only traffic originating or terminating in America, there should be included most of the commerce of Europe with New Zealand and the other islands of the Pacific east of Australia. New Zealand will be 1,503 miles nearer Liverpool by the Nicaragua Canal than via the Suez route, and 2,407 miles nearer than by the way of Good Hope. The distances to Liverpool from the most important groups of South Pacific islands north of New Zealand will be from 500 to 5,500 miles less via the isthmian canal than by way of Suez. The entrances and clearances of New Zealand's trade with Northwestern Europe—France and countries farther north—amounted to 481,178 tons net registered in 1899, and the commerce of that part of Europe with the other islands of the South Pacific east of Australia to 181,743 tons. Of this total traffic of 662,921 tons, not less than 500,000 might have advantageously used an isthmian canal, and this amount should be added to the tonnage of the canal traffic originating or terminating in America. This makes the

total obtained by the commission's investigation of the tonnage that might have used an isthmian canal in 1899, 4,574,852 tons net register; and the total obtained by adopting the New Panama Canal Company's figures for the traffic originating or terminating in America, 4,685,575 tons.

The above totals for the tonnage that might have used an isthmian canal in 1899 do not include any of Europe's trade with Australia and Japan, a part of which, for reasons stated above, would have used an isthmian waterway. The distances from Great Britain to Sidney and Yokohama by the Suez and isthmian canal routes are approximately equal, and vessels going by America in either direction en route between Europe and Japan or Australia will pass regions from which there is a heavy export tonnage. If it be assumed that only ten per cent of the vessel tonnage of the Australian trade with the ports of Northwestern Europe, and only five per cent of the tonnage of the Japanese commerce with those ports would have taken an American canal route, the totals for 1899 should be increased 316,223 tons, and be raised from 4,574,852 to 4,891,075 tons, and from 4,685,575 to 5,001,798 tons, or to approximately 5,000,000 tons.

Growth of Traffic—Probable Tonnage in 1914 and 1924.

Tables prepared by the New Panama Canal Company show that the vessel tonnage of the commerce between Europe and Pacific America, and between the Atlantic seaboard of America and the eastern and western sides of the Pacific, increased 25.1 per cent during the decade 1888-1898, and this rate has been adopted in estimating the traffic that will be available for the isthmian canal in 1914, by which year it is assumed that the waterway will have been completed and put in operation. This rate of increase would raise the available traffic of 1899, obtained by adding to the New Panama Canal Company's figures for tonnage originating and

terminating in America the present traffic across the Isthmus of Panama and 500,000 tons of the commerce of New Zealand and other south Pacific islands with Europe—4,685,575 tons—to 5,861,127 tons in 1909 and to 6,555,670 tons in 1914. A growth of 25.1 per cent per decade would increase the total of 4,574,852 tons for 1899, obtained by the Commission's investigation of the statistics of entrances and clearances, to 5,723,150 tons in 1909 and 6,401,343 tons in 1914—the tonnage being net register in each case.

In all probability the future increase in that part of the world's commerce that would use an isthmian canal will be more rapid than the past growth has been, because in the Pacific countries of America, in Australasia and in the Orient, the industrial progress of the next two decades promises to be much greater than that of the past twenty years has been. The rate of increase, 25.1 per cent per decade, prior to the opening of the canal probably undervalues what will occur. It is certainly a conservative estimate.

While it is not to be expected that the traffic of the isthmian waterway during the earlier years of its operation will increase so rapidly as did the tonnage passing the Suez Canal; the growth in the commerce using the Suez route constitutes the best basis for estimates regarding the rate of increase in the tonnage of the commerce that will use the American canal. The growth in the traffic of the Suez Canal is shown by the table on following page, in which the tonnage total for each five-year period is given.

The tonnage of the second five-year period was 205 per cent that of the first, and the total for the third period 217 per cent that of the second. The traffic in 1880 was 3,057,422 tons, that of 1890, 6,890,094, an increase of 125 per cent; and that of 1900, 9,738,152 tons, a growth of 2,848,058 tons, or 41 per cent during the past decade. The initial tonnage of the Suez Canal was small and the rate of increase during the first decade was large. Should 1914 be the first year of the operation of the American canal, and the rate of

Increase in the Number of Vessels and Tonnage of the Suez Canal by Quinquennial Periods.

Years.	Number of Vessels.	Net Tonnage.	Per Cent Increase.	Percentage which the tonnage of each five-year period is of the tonnage of 1875-1879.
1870-1874 . . .	4,770	5,358,237
1875-1879 . . .	7,684	10,995,214	105	. .
1880-1884 . . .	14,542	23,916,374	117	217
1885-1889 . . .	16,726	31,430,454	31	286
1890-1894 . . .	17,848	39,899,143	27	363
1895-1899 . . .	16,939	44,042,274	10	401

increase in the traffic during the first ten years be $62\frac{1}{2}$ per cent—half that of the Suez waterway during the second decade of its use—the estimated tonnage at the beginning, in round numbers 6,500,000 tons net register, would be raised to approximately 10,500,000 tons in 1924.

Tolls and Traffic.

The extent to which the isthmian canal is used will depend in part upon the tolls charged. The commerce of western South America with Europe will continue to pass the Straits of Magellan or to round Cape Horn; the trade of the American Atlantic seaboard with Australia will keep to the Good Hope route, and the traffic between our eastern seaboard and the Philippines and southern China will remain tributary to the Suez route, if the charges for passing the American canal are made greater than the saving to be effected by using that waterway. A toll of about one dollar per ton net register could profitably be paid by the commerce between Europe and western South America, and by that of our eastern seaboard with Australia; but in both instances a much higher charge would probably cause a large share of

the business to continue to be done by the routes now used. For the commerce of our eastern ports with the Philippines and the mainland of Asia between Singapore and Shanghai the distances by way of the Suez and isthmian canals will be so nearly equal that the route chosen will depend largely upon tolls. Light charges at the American canal will give that waterway a large share of the tonnage; high tolls will cause the Suez route to be used.

The Suez tolls at the present time are nine francs per ton net register, "Danube" measurement; and this charge amounts to somewhat more than \$2 per ton net register, British or American measurement. The Suez tolls are levied by a private corporation, whose object is to secure the maximum revenue obtainable. With the exception of the trade between Europe and Australia, the commerce served by the Suez Canal can be charged a high toll without much restricting the tonnage using the waterway; consequently a large reduction in charges would not be compensated for by the increase in traffic and the revenue would be less. It is not probable that the Suez Canal Company would find it profitable to reduce its tolls largely for the purpose of competing with the American waterway.

In fixing the charges for the use of an isthmian canal, owned and operated by the United States Government, the principle of maximum revenue could not wisely be followed. The revenue-producing function of the canal will be a minor one as compared with its services in promoting the industrial and commercial progress and general welfare of the United States. The exaction of tolls that would much restrict the benefits derivable from the canal would not be to the advantage of the American people.

An annual traffic of 7,000,000 tons, at \$1 per ton, will produce a revenue of \$7,000,000. The expenses of operating and maintaining the Panama Canal are estimated at about \$2,000,000 per annum, and those of the Nicaragua Canal at about \$3,350,000. Upon this basis the net revenue by either

route would not be sufficient, at the opening of the canal, to pay interest upon the capital invested and compensate a private corporation for the risks involved. It is the opinion of the Commission, however, that there are other considerations more important than revenue. It may even be expedient for the United States to reduce the tolls to an amount which will barely cover the expenses of operation and maintenance. A large increase of traffic in the future is probable, and the revenue producing value of the canal would then be proportionately greater.

EMORY R. JOHNSON.

University of Pennsylvania.

THE ISTHMIAN CANAL QUESTION AS AFFECTED BY TREATIES AND CONCESSIONS.

The subject of opening a maritime canal through the American isthmus, between the Atlantic and Pacific oceans, has been before the people of the United States for three-quarters of a century. It was not a new question; when the search for a connecting strait was reluctantly abandoned, during the early period of the Spanish occupation, an artificial waterway was proposed. Various plans and schemes were discussed from time to time, surveys and explorations were made at Tehuantepec, across Nicaragua, upon the Isthmus of Panama and in the Darien region, but the examinations were of a superficial character, and if any scientific data were collected they were not available when, at a later period, intelligent investigations were undertaken to discover the advantages of the different routes and to determine which was the most practicable and feasible for the great work of uniting the two oceans.

Three centuries passed without making any substantial progress, and when the Spanish provinces in Central and South America had achieved their independence they inherited the opportunity of opening a way through the continent for commerce and travel which the mother country had failed to improve, and it soon became apparent that they realized its importance.

In 1823 Guatemala, Honduras, San Salvador, Nicaragua and Costa Rica united in forming the Federal Republic of Central America. Two years later the minister of the new republic at Washington was directed to invite the Government of the United States to co-operate in the construction of a canal of communication through Nicaragua, and stated that a company of respectable American merchants was ready to undertake the work as soon as a treaty could be arranged between the two countries. Diplomatic corre-

spondence followed, but before any action was taken in the form of treaty the Republic of Central America, in June, 1826, entered into a contract with Aaron H. Palmer, of New York, and his associates, authorizing the construction of a ship canal from ocean to ocean, through the territory of Nicaragua, for vessels of the largest burden.

The company of construction was to operate the work after its completion long enough for the reimbursement of the capital invested and 10 per cent interest thereon, and for seven years after the reimbursement it was to receive one-half of the net proceeds of the enterprise. The entire property after this period was to belong to the state.

The Central American and United States Atlantic and Pacific Canal Company was at once projected, with a capital stock of five million dollars, for the purpose of fulfilling the contract, which was conveyed by deed of trust to De Witt Clinton, then governor of New York, and others to be held in trust until the proposed company was duly incorporated. Mr. Palmer went to London to seek the assistance of British capitalists in carrying out the undertaking, but was unsuccessful, and the contract was annulled for failure to begin the work within the time fixed by its terms.

Henry Clay was secretary of state when Don Antonio José Canaz, the minister of the republic of Central America, presented this subject, and in reply stated that the importance of uniting the two seas was fully realized, and that the President had determined to instruct the *chargé d'affaires* of the United States to carefully investigate the facilities which Nicaragua offered. President Adams manifested the interest which he felt in the proposed interoceanic communication when he appointed commissioners to represent the United States at the congress of Panama in the following year. In their letter of instructions he advised them that a cut or canal for the purposes of navigation, somewhere through the isthmus that connects the two Americas, would be a proper subject for the congress to consider when it should assemble.

After the failure of Mr. Palmer and his associates the Republic of Central America entered into negotiations with a company in the Netherlands, with the same purpose in view, and the basis of an agreement was adopted by the two houses of Congress in the latter part of 1830, but no results followed. The Republic then turned once more to the United States and offered to grant to the government the right to construct a canal by the proposed route through Nicaragua.

This offer was not accepted, but the Senate passed a resolution in March, 1835, requesting the President to consider the expediency of opening negotiations with other nations, particularly with the Republics of Central America and New Granada, for the purpose of protecting, by suitable treaty stipulations, such individuals or companies as might undertake to unite the Atlantic and Pacific oceans by the construction of a ship canal across the American isthmus.

President Jackson complied with this resolution by sending an agent to Nicaragua and Panama to examine these routes and procure accurate information as to the practicability of the different projects, also copies of laws and contracts relating to them and the details of such surveys and estimates of cost as could be obtained. No satisfactory results followed, and a message was sent to the Senate, in January, 1837, stating that it was not expedient, at that time, to enter into negotiations with foreign governments upon the subject.

Another resolution of like import was adopted by the House of Representatives of the twenty-fifth Congress, in March, 1839, and President Van Buren sent another agent to the isthmus. He recommended the Nicaragua route and estimated the cost of a canal there at twenty-five million dollars, but did not think the time was favorable for such an undertaking, because of the unsettled and revolutionary condition of the country.

The principal survey of the Nicaragua route during this period was made by John Baily, an English engineer. He

was employed by President Morazin, in 1837, to determine the best location for a canal and recommended a route from San Juan del Norte, now Greytown, up the San Juan River and through Lake Nicaragua to the Lajas and thence to San Juan del Sur on the Pacific.

The Panama route was within the territorial limits of the State of New Granada, which formed with Ecuador and Venezuela the Republic of Colombia from 1819 to 1831, when they separated into three independent republics.

In November, 1827, President Simon Bolivar commissioned Mr. J. A. Lloyd to survey the Isthmus of Panama, so as to ascertain the most eligible line of communication from sea to sea, whether by road or canal. He spent two seasons in exploring the country and recommended a line beginning at the Bay of Limon, thence to the Chagres River by a canal and up the river to a favorable location on the south bank of the Trinidad River and thence by road to Panama or Chorrera, the latter being nearer, but the former being preferable as a better port and the capital of the state, where its trade was already centered. He did not recommend a canal on this part of the route, but said that if a time should arrive when a project of a water communication might be entertained, the river Trinidad would probably offer the most favorable conditions.

In 1838 the Republic of Colombia granted to a French company a concession authorizing the construction of macadamized roads, railroads or canals across the isthmus with the Pacific terminus at Panama. Several years were spent in making explorations, and M. M. Salomon, the leading spirit in the enterprise, communicated the results to the French Government, in the hope of securing its aid. It was stated, among other things, that a depression in the mountain range offered a passage about thirty-seven feet above the average level of the Pacific. The government determined to verify the results thus presented, and in September, 1843, Napoleon Garella was employed to investigate the question of the junction of both seas by cutting

through the isthmus and to report the means of effecting it, the obstacles to be overcome and the cost of such an enterprise. He favored the recommendation of Lloyd, establishing the Atlantic terminus at the Bay of Limon, and a connection with the Chagres was to be made somewhat below the mouth of the Gatun. The low depression in the divide was nowhere found and his plan involved a tunnel five and a third miles long, but he also estimated for a cut through the ridge instead of the tunnel. The Pacific terminus was to be in the small bay of Vaca de Monte, about twelve miles southwest of Panama. The estimated cost of the work was twenty-five million dollars or twenty-eight millions, if the cut were used instead of the tunnel. The proposed cut was to have a maximum depth of about two hundred and seventy-five feet, and its bottom width would be nearly fifty feet more than that of the tunnel. This report disappointed the expectations raised by the projectors; no further steps were taken for the execution of the project and the contract was annulled.

Towards the middle of the century the westward movement of population led to some great events, which resulted in the permanent establishment of governmental operations upon the Pacific Coast. Among these were the contention with Great Britain over the Oregon boundary, which was settled by the Buchanan-Pakenham treaty of 1846, the admission of Texas into the Union, followed by the war with Mexico, one of the results of which was the acquisition of California. Before the treaty was signed gold had been discovered there, and in a few months thousands were flocking to the mining regions from all parts of the world. Many from the Atlantic and Gulf States traveled thither across the continent, others sailed around Cape Horn, but by far the larger number crossed the isthmus by the old transits used by the Spaniards, at Panama and across Nicaragua, the terminals of which were soon connected with New York and San Francisco by lines of steamships.

The increasing and prospective importance of an inter-oceanic communication by way of the Isthmus of Panama had caused the Government at Washington to negotiate a treaty with New Granada, by which the former secured, among other things, the right of way or transit from sea to sea by any mode of communication then existing or that might thereafter be constructed, subject to no other tolls or charges than those levied or collected from citizens of New Granada under like circumstances. In return for these advantages and to secure their tranquil enjoyment, the United States guaranteed to New Granada the perfect neutrality of the isthmus, so that the transit might not be interrupted during the existence of the treaty. On more than one occasion this guaranty has been effective in maintaining peace and protecting life and property in this region. This treaty was signed in December, 1846, but the ratifications were not exchanged till June, 1848.

In May, 1847, New Granada entered into a contract with one Mateo Kline, a citizen of France, authorizing the Panama Company, an association organized in Paris, to construct and maintain a railroad across the isthmus for ninety-nine years. The road was to be completed within six years, to be counted from four months after the approval of the contract by the Congress of the Republic. The French company was unable to comply with the terms of the contract and it was forfeited. In December, 1848, it was revived, in a modified form, in favor of William Henry Aspinwall, John Lloyd Stephens, Henry Chauncey and their associates, who formed the Panama Railroad Company, which in the following year was incorporated by the Legislature of New York. This company completed the road January, 27, 1855, and it has since been kept in continuous operation. There were subsequent modifications of the contract and in its last amended form it is to continue in force for ninety-nine years from August 16, 1867, after which period the entire property is to go without compensation to

the Government of Colombia, by which name New Granada has been designated since 1862. Nearly all of the stock of this company is now owned or controlled by the New Panama Canal Company. It was purchased by the old Panama Canal Company, because the latter could not construct its canal along or near the line of the railroad without coming to some agreement with the Panama Railroad Company and this could most easily be accomplished by owning a majority of the stock. These shares were among the assets of the old company when it went into liquidation.

Soon after the treaty with New Granada was ratified, negotiations were entered into with Nicaragua for the arrangement of terms upon which a canal might be constructed through its territory. Mr. Elijah Hise, *chargé d'affaires* of the United States, joined in signing such a treaty in June, 1849, but his action was unauthorized and it was never sent to the Senate for ratification. He was succeeded by Mr. E. G. Squier, who negotiated another treaty upon the subject, which received like treatment at Washington. He also negotiated a contract for the construction of an interoceanic canal or railroad in the interest of the American Atlantic and Pacific Ship Canal Company, which was organized by Cornelius Vanderbilt, Joseph L. White, Nathaniel H. Wolfe and their associates. This contract was dated in August, 1849, and granted the exclusive privilege for eighty-five years of excavating a ship canal for vessels of all sizes from Greytown, or any other feasible point on the Atlantic, to Realejo, the Gulf of Amapala or Fonseca, Tamorinda San Juan del Sur or any other point on the Pacific by the San Juan River, Lake Managua, Tipitapa River and Lake Managua or any other waters of the republic. The contract also permitted the company to construct rail or carriage roads and bridges and to establish steamboats and other vessels on the rivers and lakes, as accessories to and in furtherance of the canal project. The latter part of this contract was separated from the former in August, 1851, by

authorizing the organization of a new company with the same membership but distinct and separate, to be known as the Accessory Transit Company, which was to execute the part of the contract relating to the navigation of the waters of the state. But this arrangement was not to relieve either party from the obligations of the original contract. This Accessory Transit Company established and maintained for many years, in connection with steamship lines in both oceans, a transportation route from Greytown up the San Juan River and across Lake Nicaragua by steamboats to Virgin Bay, on the western side of the lake, and thence by stage coaches over a well-kept road to San Juan del Sur.

The part of the contract relating to the canal was never extended, but the company had a careful instrumental survey of the route made by Colonel Orville W. Childs, which has been of great value to subsequent explorers. The general course of the line that he recommended has been followed in all subsequent surveys and has been accepted with some variations as the best. After the failure of the American Atlantic and Pacific Ship Canal Company, no further steps were taken towards the construction of a canal through Nicaragua until 1884, but in the meantime other surveys and examinations were made under the authority of the United States in investigating the merits and advantages of the different canal routes.

In December, 1884, the Frelinghuysen-Zavala treaty was negotiated between the United States and Nicaragua. It authorized the construction of a ship canal by the former through the territory of the latter, to be owned by the two contracting parties. When completed it was to be managed by a board of six directors, three to be appointed by Nicaragua and three by the United States. One of the latter was to be designated as chairman and was to have an additional vote whenever the members were equally divided. The net earnings of the work, when completed and in operation, were to be divided quarterly between the two owners, one-third to go to Nicaragua and two-thirds to the United States.

The treaty provided for a perpetual alliance between the two republics and obligated the United States to protect the integrity of the territory of Nicaragua. It was rejected by the Senate, but a motion was entered to reconsider the vote and the matter went over to the next Congress. It was then withdrawn from further consideration by President Cleveland for the reason that its terms were inconsistent with the policy of the United States.

In April, 1887, Nicaragua granted a concession to Aniceto G. Menocal and his associates to construct a canal from Greytown up to the San Juan River, across Lake Nicaragua and thence to the Pacific. They organized the Maritime Canal Company, of Nicaragua, and in August, 1881, obtained a like concession from Costa Rica, whose territory would also be affected by the construction of the proposed waterway. The company obtained from the Congress of the United States an act of incorporation, approved February 20, 1889, and entered upon the work of construction. But the work was discontinued in August, 1893, and in October, 1899, Nicaragua declared that the concession was forfeited.

Before the expiration of the time for the completion of the canal by the Maritime Canal Company, Nicaragua entered into another canal contract with Edward Eyre and Edward F. Cragin, who agreed to organize a company to be called the Interoceanic Canal Company, but the privileges were forfeited because the company failed to pay into the treasury of the republic, within four months after its organization, an additional guaranty deposit of \$400,000, according to the terms of its agreement.

While the Maritime Canal Company was endeavoring to secure the construction of the canal under its charter, efforts were made in Congress to secure the assistance of the United States, and bills for that purpose, differing somewhat in their terms, were twice passed by the Senate, but no final action was taken upon either of them by the House of Rep-

representatives. The friends of a canal did, however, secure in March, 1895, an appropriation for a survey of the Nicaragua route and the Nicaragua Canal Board was organized for this purpose. It was composed of Colonel William Ludlow, Corps of Engineers, U. S. A.; Civil Engineer M. T. Endicott, U. S. N., and Civil Engineer Alfred Noble. This board reported that it had been unable with the means at its command, and within the time fixed in the law, to make a thorough survey and recommended that the work be continued and that a larger appropriation be made. Accordingly in June, 1897, a new appropriation was made to carry out the recommendation of the board and the Nicaragua Canal Commission was constituted. It was composed of Rear Admiral John G. Walker, U. S. N.; Colonel Peter C. Hains, Corps of Engineers, U. S. A., and Professor Lewis M. Haupt, Civil Engineer. This Commission presented its report in May, 1899, and the results of its labors were printed for the use of the Isthmian Canal Commission, which was appointed in June, 1899, under a law approved March 3, 1899. This Commission, of which Admiral Walker was elected president, was required to examine all the proposed canal routes across the American isthmus and to report the cost of constructing a canal at each, and also which is the most feasible and practicable route.

The report has recently been presented to the President and laid before Congress. It contains plans and estimates for a canal by each of the two routes, at Panama and Nicaragua, and recommends the latter as the most feasible in view of all the facts and circumstances.

During the seventy-five years that this brief history covers there have been many grants, concessions and contracts made by the states within whose territory the different canal routes lie to companies, associations and individuals, authorizing the construction of a maritime canal, but none of the enterprises has been successful. Failure and annulment have thus far followed every effort, except in the case of the

New Panama Canal Company, which has had two extensions of its charter because of its inability to complete its work within the time prescribed, according to its obligations, and has for several years been trying to dispose of some interest in its property to the United States.

It seems manifest, therefore, that so vast an undertaking is not likely to be carried to a successful completion unless it is undertaken by a willing government with abundant means and resources.

The Congress of the United States must have been impressed with this view when, in March, 1899, it passed the law under which the Isthmian Canal Commission was organized, for it contains the first legislation in our national history which contemplates the construction of an inter-oceanic communication across the American isthmus to be under the sole control, management and ownership of the United States.

This involves the continued occupation and use of foreign territory by agents, employees and laborers in the service and pay of our government, and requires the consent of the sovereign power within whose jurisdiction the required territory lies.

No treaty has ever been made by Colombia, by Nicaragua or by Costa Rica with the United States giving such consent, and the concessions which these republics have granted from time to time to companies, associations and individuals have generally, if not always, contained conditions which prohibited their transfer to a foreign government. But Nicaragua has not always maintained this attitude; the Hise treaty was negotiated with the consent of that government in 1849, and the Frelinghuysen-Zavala treaty in 1884. Each of these authorized the United States to occupy Nicaragua territory for the construction and operation of a canal from sea to sea; each of them was signed by the representatives of the two governments, and they failed because they were not ratified by the United States Senate.

But whatever the policy of the three republics may have been in the past they seem to have reached the same conclusions as the United States, that the magnitude and cost of the work will continue to discourage private enterprise, and that its construction should be undertaken by a friendly government.

Colombia gave her consent a few months ago to the New Panama Canal Company, if terms satisfactory to it and to the government could be made, to sell its rights, privileges and unfinished work to the United States, and Nicaragua and Costa Rica, in December, 1900, entered into protocols by the terms of which they were to negotiate with the United States, at the proper time, so as to arrange a plan for the occupation and use of their territory by the latter for the construction and operation of the proposed interoceanic canal by the Nicaragua route.

The obstacle then in the way was the Clayton-Bulwer treaty, entered into between the United States and Great Britain on the nineteenth of April, 1850, by the terms of which, each of the signatory powers was pledged to the other not to obtain or maintain for itself any exclusive control over a ship canal between the Atlantic and Pacific Oceans through Nicaragua, by the way of the River San Juan and either or both of the Lakes of Nicaragua and Managua. Recent negotiations have resulted in a new treaty between these contracting parties to take the place of this treaty of 1850. This treaty having been ratified by the United States Senate, the way is open for treaties with Nicaragua and Costa Rica upon the lines indicated by the protocols.

The details of the treaties must be arranged by the treaty-making power and with the present disposition of the governments, within whose territory the routes lie, there is good reason to believe that satisfactory results can be obtained, whether Congress, in legislating for the construction of a canal, selects the Panama or the Nicaragua route.

Let us consider the situation and determine what privileges should be granted to the Government of the United States to deal with its requirements successfully.

An engineering work of unprecedented proportions is to be constructed in a foreign country, and after its completion it is to be maintained and operated. It will take eight or ten years, perhaps longer, to construct the work, during which period thousands of officials, assistants, mechanics and laborers must be employed. After its completion a smaller force will be sufficient for its maintenance and operation. There will be an annual disbursement of many millions of dollars; working parties must be organized and kept at work upon different parts of the isthmus; the laborers must be controlled and protected by police and sanitary regulations. The United States must have power to enforce its contracts, to bring to punishment those in its employ who may be guilty of theft, embezzlement or other crimes, and restrain and control the idle and vicious hordes that will gather about the outskirts of the camps and quarters along the line of construction.

When the canal is completed and in operation there must be power to collect tolls, lighthouse charges and other dues, to maintain and enforce quarantine and other regulations, and to protect the officers, crews and passengers upon the vessels which pass through the canal, as well as those employed in the canal service. The main work and its dependencies and the vessels that use any of them must be protected from trespass and injury and defended in case of attack or violent demonstrations.

Authority must be given to construct or improve harbors and approaches to the canal at each terminus, also to establish lighthouses, docks, piers and other appropriate works. The rivers and lakes, whose waters are to be used in operating the canal and the streams tributary to them, must be subject to control with power to raise or lower their levels, and to rectify and change their courses whenever it becomes

necessary, whatever effect the deviation of the waters or their increased depth may have upon the adjacent public lands, and with just and appropriate provision for damages in cases of private ownership.

The United States should have the free right to take, from lands belonging to the state, timber, rock or any other materials whatsoever, necessary or convenient for the construction, repair or operation of the main work and its dependencies, or for use at the harbors or entrances, and the right to take such materials from private lands should also be granted upon the same terms as when they are taken and used by the state for public purposes.

The right should be granted to import into the state, free from all customs, duties and charges, all machinery, tools, implements and materials of all kinds that may be necessary or useful for the construction, maintenance and operation of the canal and the auxiliary works connected therewith; also all provisions, medicines, clothing, building materials and other articles for the use of the officers and employees in the canal service and their families. These importations should be made under suitable regulations and restrictions so as to prevent violations or evasions of the customs laws of the state.

In order to accomplish these ends and purposes, the United States should obtain control of a strip of territory to include the canal line and auxiliary works from ocean to ocean and a harbor at each terminus. The strip should be not less than five miles in breadth, on each side from the centre line of the canal, with additional territory to include any dependencies that must necessarily be located at a greater distance. This width is desirable so that such ordinances, rules and regulations as may be made with reference to the canal property, may be enforced throughout a territorial jurisdiction broad enough to accomplish the purposes for which they are designed. If the possession and control are limited to the territory occupied by and immediately

adjacent to the property, it will be impracticable to keep intruders and undesirable persons away from the immediate vicinity of the canal and the camps and quarters of the employees and laborers, or to exclude or restrain any traffic likely to cause trouble or disorder.

At the harbors and entrances there should be suitable locations for lighthouses and other aids to navigation, quarantine stations, docks, coaling facilities, and such other establishments as it may be desirable to maintain.

It is important to consider what title should be obtained to the strip and other territory. The most desirable arrangement would be an actual cession and relinquishment of sovereignty to the United States. Our government would then have absolute control of the territory, it would be subject to Congressional legislation, our laws could be enforced there without restriction or supervision and it could be defended by our own army and navy whenever attacked. This, however, is not practicable. The different routes lie within the limits of sister republics with which we are upon the most friendly terms. These republics do not desire to dispose of any of their territory and there is no power contained in their constitutions to enable them to do so, if the government and people were willing to entertain a proposition to cede land for canal purposes to the United States.

But there is no constitutional barrier in the way of acquiring such control by the United States as will be sufficient for the construction and operation of a canal and its dependencies with full authority to exercise all the powers and accomplish all the results that have been specified, by the permission and under the sovereignty of the republic whose territory is to be used and occupied.

The United States should secure this right of control without limit as to time. The concessions hitherto granted to individuals, associations and companies, almost without exception have been limited to terms of years; in some cases provision has been made for a renewal of the privileges

for a second term, but in the end the entire property was to go to the republic granting the concession without repayment of the money invested or any part of it to the concessionaire or grantee. Such a condition will not be acceptable to the United States. If an isthmian canal is constructed by American enterprise, skill and industry, with public money or credit, it will be a work not merely for the present generation, but for all time. Its value and importance will in all probability increase as the decades pass and new centuries come, and we should be false to those who are to come after us were we to enter into an obligation to let it pass into other hands at any time in the future without other compensation than its use and the tolls collected during the term of possession. The property rights which the United States may acquire should be in perpetuity. The most desirable tenure is under a fee simple title, but the canal can be operated without danger of interruption under a perpetual lease or a lease for a long term of years with an obligation of renewal from time to time as the terms expire.

There should be no divided ownership. If the United States should acquire a half interest in the property or less, it would be without controlling authority. A larger and controlling interest would still be unsatisfactory, for the other owner would be entitled to some voice in the management and would have a right to inspect and investigate the books, accounts and expenditures of the canal enterprise.

The policy of the United States would be to operate the work in the best interests of the country without regard to financial profits. The promotion of national growth, the extension of commerce, the establishment of closer business relations between the Atlantic and Pacific States would from the American standpoint no doubt outweigh the importance of large profits and low rates of toll would be advocated, perhaps so low as to cover but little more than the actual cost of maintenance and operation.

The other owner, not being concerned about American

interests, would desire speedy and large returns and insist upon rates that would promise this result.

Another question worthy of attention is the consideration to be paid for the rights and privileges which the United States desires to acquire and exercise in order to prosecute this canal enterprise.

A share in the profits is subject to all the objections of divided ownership. The government should have the entire control and management of the property, free from all interests which may interfere with whatever policy it may desire to maintain.

The consideration should be a definite and fixed sum, to be paid as may be agreed by the terms of the treaty; or an annual sum to be paid at a specified date each year or quarterly; or a fixed sum coupled with annual or quarterly payments. Either one of these three methods would prevent misunderstandings and differences and ought to be satisfactory to the contracting parties, but the chief difficulty to be determined is the amount to be paid.

The state that secures the great boon of an interoceanic canal without the expenditure of money or the pledge of credit, can well afford to act liberally with the government that proposes to build it. The annual output of the large sums necessary for its construction within the territory will give vigor to every industry and the opening of a new and great channel through the country for travel and trade will bring it into ready communication with the leading commercial nations of both hemispheres. No other country can hope to gain such advantages from the successful completion and operation of an isthmian canal as that through whose territory it will pass.

It can well afford to offer free occupation and all the privileges that have been enumerated without charge, as an inducement to the United States to select the route within its limits. But it is not probable that this will be done, and the first step in the direction of construction, after the rela-

tions between Great Britain and the United States upon this canal question have been adjusted, will be to arrange this question of price.

There is little in the history of the past to guide or instruct us as to what amount should be expected or demanded for the rights and privileges that the United States will require for the successful prosecution of the enterprise. The contracts heretofore made and negotiated by Colombia, Nicaragua and Costa Rica with the United States and its citizens, who have prepared to undertake similar enterprises in the past, may throw some light upon the subject and brief reference will be made to them.

Two treaties, which have been already mentioned, have been negotiated by Nicaragua permitting the occupation of the territory of that republic by the United States for canal purposes. There was no money consideration to be paid by the terms of the Hise treaty, but the United States undertook to protect and defend Nicaragua in the possession and exercise of sovereign authority over all its territory within the true boundaries of the state.

The Frelinghuysen-Zavala treaty proposed a joint ownership in a canal, to be constructed by the United States through territory belonging to Nicaragua, and a division of the net profits made by operating it. Neither of these treaties was acceptable to the United States.

Two concessions for the construction of a canal through Nicaragua have been made by that state to citizens of the United States during the past fifteen years.

The pecuniary consideration for the Menocal contract was to be 6 per cent in amount of the shares, bonds, certificates or other securities which the company of execution might issue to raise its corporate capital. These shares or securities were to be full-paid and non-assessable, and were in no event to amount to less than \$4,000,000 in face value.

The Interoceanic Canal Company, represented by Eyre & Cragin, was to have valuable banking, mercantile and other

privileges and franchises, to be exercised in different parts of the state, besides the right to construct and operate a maritime canal and the auxiliary works connected with it.

These privileges were to continue in perpetuity and the immediate consideration, to be paid to the government upon the organization of the company, was 8 per cent of the total amount of stock issued, the same to be full-paid and non-assessable, and in no event to be less in par value than \$8,000,000 in American gold. After a period of 199 years the government was to have a share in the profits of the enterprise, in addition to the dividends upon its stock.

The Interoceanic Canal Company obtained no concession from Costa Rica, but the Maritime Canal Company, of Nicaragua, which was organized to execute the Menocal concession, entered into a contract with Costa Rica as well as with Nicaragua. The terms of these contracts as to the consideration were similar, except as to the amount of shares or securities the government was to receive in the Costa Rica contract; this was to be not less than \$1,500,000 in face value.

The Government of Colombia has never negotiated a treaty with the United States authorizing the use and occupancy of its territory for the construction of a canal, and the only concessions made to companies or individuals within the last fifty years, authorizing the construction of a communication from sea to sea across the Isthmus of Panama, are those with the Panama Railroad Company and with the old Panama Canal Company and its successor.

The contract with the Panama Railroad Company was modified and extended in 1867. The immediate consideration paid to the Colombian Government was \$1,000,000 in American gold or its equivalent, and in addition thereto the company was to pay annually to the government, in quarterly payments, the sum of \$250,000 in American gold. The contract also secured to the government certain transportation privileges upon the railroad.

The old Panama Canal Company obligated itself to pay for the privileges granted to it 5 per cent on all collections of dues made by it in the operation of the canal during the first twenty-five years after its opening. This was to be increased to 6 per cent during a second period of twenty-five years, to 7 per cent during a third period, and to 8 per cent from the seventy-sixth year to the termination of the privilege at the end of the ninety-ninth year. It was guaranteed that this sum should not be less in any year than \$250,000. The company also agreed to give the government free transportation through the canal in certain specified cases.

Extensions were subsequently granted to the liquidator or receiver of the old company and to the New Panama Canal Company, in consideration of different sums amounting to 17,000,000 francs or \$3,230,000, also dividend-bearing shares of the stock in the new company full paid, amounting in par value to 5,000,000 francs or \$950,000.

There are no concessionary obligations now in force to prevent Nicaragua or Costa Rica from entering into a convention with the United States, granting the privileges necessary for the construction and operation of a canal by the Nicaragua route, and fixing the terms and the consideration to be paid therefor, but the situation is different at Panama.

The New Panama Canal Company controls the two concessions granted by Colombia to the Panama Canal Company and to the old Panama Canal Company with the extensions of the latter. These give to it exclusive control of the territory throughout Panama and Darien for canal purposes, and each contract contains a prohibition forbidding its transfer to a foreign government. The stockholders and creditors of the old company have an interest in the new organization, which is represented by the liquidator or receiver appointed by the court that has jurisdiction of the proceedings in liquidation. By the terms of the charter of the new company, 60 per cent of its net income after

paying all expenses, charges and stipulated dividends, will belong to the old company in liquidation, and is to be distributed by the liquidator among the parties in interest. This right to a share in the profits gives no right to those who enjoy it to take part in the acts or administration of the new company. They are represented by the officer of the court appointed for their protection, and if any sale or transfer of the concessions, rights, privileges or property of the New Panama Canal Company is made, he must be a party to it; the transaction will require judicial sanction; and can only be completed under an order of the court from which the liquidator derives his authority.

In the negotiations between the Isthmian Canal Commission and Mr. Hutin, the president of the new Panama Canal Company, it was understood that he was acting with the consent of the liquidator, and that if satisfactory terms for a sale of the rights, property and unfinished work of the company to the United States should be agreed upon, it would be with the understanding that a perfect title would be given, and this would require the confirmatory action of the court.

The actual and just value of the company's rights and property amounted to \$109,141,500, according to the figures which Mr. Hutin presented to the Commission, and these were submitted to the President in its report.

The cost of completing the Panama Canal, according to the estimates of the Commission, is \$144,233,358. These sums amount to \$253,374,858, while the cost of constructing the Nicaragua Canal is estimated at \$189,864,062, a difference in favor of the latter of \$63,510,796.

The figures of the company were regarded by the Commission as so unreasonable that the acceptance of the offer could not be recommended, and the opinion was expressed that, considering all the facts developed by its investigations, and having in view the terms offered by the New Panama Canal Company, the most practicable and feasible

route for an isthmian canal, to be under the control, management and ownership of the United States, is that known as the Nicaragua route.

The treaty-making power is now engaged in removing the only obstruction in the way of conventions with the governments of Nicaragua and Costa Rica, that control the route thus declared to be the most feasible. The new treaty with Great Britain has been ratified. When the negotiations with these two republics are completed the first decisive step in the great work of connecting the two oceans by a maritime canal will have been taken. The United States will then have all the authority it requires from other powers to construct and operate the isthmian canal. The period devoted to rights, privileges and concessions will be closed.

Legislation and construction are still to come, and the present indications are that prompt Congressional action will be followed by the inauguration of the work without unnecessary delay.

SAMUEL PASCO.

Isthmian Canal Commission, Washington, D. C.

PRESENT STATUS AND FUTURE PROSPECTS OF AMERICAN SHIPBUILDING.

Not since the early fifties has American shipbuilding enjoyed so large a measure of prosperity as that of to-day. Nearly a half million registered tons were added last fiscal year. On June 15, 1901, eighty-nine merchant ships and seventy-one war vessels were reported as being under construction, making a total of 135 vessels with a combined tonnage capacity of 488,700 tons. The trade authorities report that the shipyards engaged in building steel ships have orders which will require fully twelve months to fill, operating at their full capacity.¹ Wooden ship construction on the Maine coast and in the far northwest seems to be no less favored. For the past two or three years shipbuilders have been especially occupied with the construction of ships for the country's coasting trade, and for a longer period with the building of war vessels of various types. On the Atlantic seaboard the chief feature of progress in this industry has been in naval construction and in the evolution of a larger type of many-masted schooners. On the Great Lakes the steam-freighter types, with a maximum tonnage of 9,000 tons, gross register, are still the characteristic contribution of these inland seas to this phase of national development.

The shipbuilding industry on the Pacific Coast for the past three years, according to the *Scientific American's* reports, has enjoyed a period of extraordinary activity. From January, 1898, to September, 1900, thirty-two months, the number of new ships built aggregated seventy-four, with a total tonnage capacity of 37,910. Government vessels were not included in the list. Of the new craft, forty-five, with a tonnage of 14,229, were schooners, five were barkentines of 4,597 tons, one was a barge of 632 tons, and twenty-three

¹ Blue Book of American Shipping, Preface, 1901.

were steamers having a tonnage of 18,452. The largest of the schooners rated 985 tons, and of the steamers, 4,597 tons. Of the latter, three, aggregating 7,298 tons, were built of iron, the others of wood. San Francisco builders were the constructors of the larger number of both iron and wooden ships; but almost every port on the coast, from San Pedro to Puget Sound, wherever the necessary supplies of lumber were to be had, contributed to the total result. Creditable as the exhibit is, the outlook is even more flattering. There is not a shipbuilder along the 2,000 miles of coast who has not all the work contracted for that can possibly be handled and who could not easily duplicate his present undertakings if the supply of labor warranted it.

The cause of this prosperity is easily explained. For many years prior to 1898 the industry languished, and the carrying trade, which had been stimulated by artificial "booms," was greatly depressed. Dividends on marine property were small. The earnings were swallowed up by heavy expenses. Losses by sea were not made good. The actual number of coast ships was considerably decreased.

Just at the time when the maritime prospect seemed darkest the extraordinary development of Alaska began. It was found that the number of vessels available for this profitable traffic was far below the demand. Every vessel that could be procured was chartered for the Alaskan trade. High charters caused many to be withdrawn from the coast carrying trade, and a considerable scarcity of vessels for ordinary requirements began to be felt. Then came the revival of the Oriental trade, in which the Pacific shipbuilders found another pressing demand for their output. There appears from trade returns to be no abatement at any point. Owing later to South African conditions, the call for ships was still further improved. Besides these local evidences of prosperity the shipbuilding talent of the nation still holds the world's pennant in the making as well as in the management of pleasure craft, which the

growth of private wealth has enabled an increasing proportion of our citizens to enjoy. Largely for this and other purposes the United States has always built ships for sale to foreigners. Since the Civil War the annual tonnage of all kinds sold to foreigners has ranged from 10,000 to 80,000 tons in round numbers.

As yet the main demand for the product of our shipyards, with the exception of a few war vessels ordered by foreign governments, has come from the necessities of national defense and the requirements of our domestic development. But the progress of the iron and steel industry in this country, the necessity of finding foreign markets for our surplus manufactures and the extension of railway control over lake and ocean transportation, have all, among other causes, contributed to inaugurate a new era in the making of ships. Surplus capital is again going down to sea in ships. Now for the first time in our history is shipbuilding being organized on an extensive scale in the consolidated companies on the Lakes, on the individual enterprises on the New England coast, on the Delaware River, the Chesapeake Bay, the bay of San Francisco, and the Puget Sound. On the western rivers the output is still comparatively small, though not by any means losing ground.

The table on page 49 gives the tonnage built for twenty-two years.

The tonnage built on the Great Lakes has hitherto had almost no relation to the demand for ocean tonnage. Within a few years some vessels have left the lakes at the close of the season to engage in the coastwise trade between seasons. But as a rule the lake-built ships have had to limit themselves to fresh water requirements. Lake trade depends largely on raw materials and crude commodities. Additions to tonnage on these waters are directly affected by the volume of trade in agricultural products and the raw materials of industry.

Shipbuilding to-day in the United States stands on an en-

PROSPECTS OF AMERICAN SHIPBUILDING

49

Progress of Shipbuilding in the United States.

[From Report of the Commissioner of Navigation.]

YEAR ENDING JUNE 30.	Built on seacoast. Tons.	Built on Missis- sippi and tributa- ries. Tons.	Built on Great Lakes. Tons.	Total annual addition. Tons.	Sailing Vessels.		Steam Vessels.		Total Built.	
					Number.	Gross tons.	Number.	Gross tons.	Number.	
1880	101,720	32,791	22,899	157,410	460	59,057	348	78,853	902	
1881	128,766	81,189	73,904	283,859	463	81,209	444	118,670	1,108	
1882	188,084	35,817	58,309	282,210	666	118,798	502	121,843	1,371	
1883	210,349	28,443	28,638	267,430	721	137,046	439	107,229	1,268	
1884	178,419	16,664	30,431	225,514	766	120,621	410	91,328	1,190	
1885	121,010	11,220	26,826	159,056	533	65,362	338	84,332	920	
1886	64,458	10,595	20,460	95,513	495	41,237	240	44,467	715	
1887	83,661	10,901	56,488	151,050	447	34,633	299	100,074	844	
1888	103,125	11,859	101,163	216,047	473	48,590	439	142,608	1,014	
1889	111,852	12,202	107,089	231,134	489	56,370	440	159,318	1,077	
1890	169,091	16,566	108,826	294,483	505	102,573	488	189,045	1,081	
1891	231,465	19,864	111,066	362,395	533	144,217	438	188,037	1,384	
1892	138,863	14,538	48,979	192,380	463	85,217	380	134,368	1,386	
1893	180,030	9,538	49,271	239,839	473	37,827	380	81,720	858	
1894	67,137	8,122	46,085	121,344	477	37,827	273	60,720	858	
1895	102,544	15,771	108,782	227,097	507	34,900	278	60,720	604	
1896	103,504	11,792	116,937	232,233	505	65,336	286	138,028	723	
1897	112,879	13,405	54,084	180,368	338	64,308	288	106,153	801	
1898	106,120	23,552	80,356	310,038	359	34,416	394	108,838	952	
1899	240,006	14,173	130,611	384,790	420	116,460	439	151,058	1,273	
1900	291,516	22,888	169,085	483,489	504	126,165	506	202,538	1,447	
1901					526			273,891	1,580	

tirely different basis compared with the position it occupied ten or twenty years ago. It has changed greatly as an industry in its relation to other industries, to the investing public, to commerce and to governmental policy. One does not readily realize how rapidly this branch of industry has grown in financial strength and in commercial value. Within a decade the capital invested has nearly trebled, wages earned have likewise doubled, and substantially the same may be said of both the expenditure for shipbuilding materials and of the value of the products of our shipyards. The number of establishments is about stationary. The number of plants in 1890 was 1,008; and in 1900, 1,083, only 77 more. The following table gives the status of the shipbuilding industry in the United States, exclusive of the United States navy yards, according to a preliminary report of the Census Bureau:

Items.	1900.	1890.
Number of establishments	1,083	1,006
Capital	\$76,699,651	\$27,262,892
Average number wage earners	46,121	22,143
Total wages	\$24,388,109	\$13,083,919
Miscellaneous expenses	3,582,257	1,392,351
Cost of materials used	33,031,280	16,521,246
Value of products, including custom work and repairing	73,444,753	38,065,410

The annual increase in our merchant marine represents the measure of demand for ships under the national flag. For the fiscal year ending June 30, 1901, this increase was 6.96 per cent over that of the preceding year. This rate is the highest since 1855. From the latter date to the present time the tonnage figures show a series of slow recoveries and abrupt reactions in the demands of our merchant marine upon the shipyards. As late as 1886 more than one-third of the annual increase in tonnage was sold to foreigners. Spasms of promise have so frequently been followed by col-

lapse that, in spite of our growing foreign commerce and our increasing importance as a naval power, our shipbuilding has concerned itself almost exclusively with meeting the requirements of our coastwise and interior commerce.

This is well brought out by a comparison of the documented tonnage in foreign and domestic trade and in fisheries on June 30, 1861, when the United States still had prominent rank in foreign trade, with that on June 30, 1901, when the total tonnage was nearly equal to that of forty years ago. The table shows that the coastwise trade has been absorbing our ships, and now utilizes four-fifths of the total tonnage of the country.

Documented Tonnage of the United States.

[From Report of Commissioner of Navigation.]

	1861. Tons.	1901. Tons.	Difference. Tons.
Foreign Trade . . .	2,496,894	879,595	-1,617,299
Coasting Trade . .	2,704,544	4,582,683	+1,878,139
Fisheries	338,375	61,940	-276,435
Total	5,539,813	5,524,218	-15,595

The reasons for the transformation implied in these figures are historical. As the writer has stated elsewhere,¹ from 1830 to 1890 our problems were essentially internal. Most of them for most of the time were intensely exacting. It was not that national lethargy had dulled the desire for ships, as some would have us think. That analysis is economically false to facts. For the time being our hands as a nation were full—full of work as honorable as shipbuilding and ocean commerce, and far more urgent and fundamental. The dominance of internal affairs over foreign commerce began to appear by the end of the first quarter of the cen-

¹ The Shipping Industry in the United States, p. 1383. United States Treasury Bureau of Statistics, December, 1900.

tury. Even as early as the war of 1812 our national problems gradually ceased to be maritime and became territorial. In 1824 a group of New York shipowners protested to Congress against the policy of economic isolation, by which capital and labor were induced to desert ocean commerce for the more remunerative pursuits of internal development. Only so long as that policy was in doubt did our ships maintain a foremost rank among maritime powers. As soon, however, as the "American policy" of economic isolation became continuous, then capital and labor employed in shipping, and consequently in shipbuilding for ocean trade, found themselves placed on an entirely different basis of earning power compared with that portion of the national capital and labor devoted to internal development. Capital devoted to shipbuilding for the sea trade had to earn returns under the stress of competition in the open world's markets, while the products of capital and labor within the national limits were sold in the national market, within which the prevailing rate of returns has always been higher than in the international market. On footings so clearly unequal, in a period of economic activity when the demand for labor and capital as a rule exceeded the supply, it was inevitable that the decadence of our merchant marine should coincide with the development of our domestic resources.

Now again the national interests have, by the logic of events, become maritime. Meanwhile the economic life of the people has also become more complex and comprehensive in its needs. From being primarily agricultural it has become industrial and then commercial. It is all of these that call for ships. Changes in our commercial relations with the world market have greatly modified the national attitude toward shipbuilding. The gains of our exports upon our imports during the latest decade have thrown upon the American producer the burden of finding over-sea markets for a growing surplus.

Growth in volume of ocean commerce of itself introduces

a new element into the question of the national demand for ships. By transferring an increasing proportion of the national surplus to the custody of the seas, to find markets, it calls for a more complete control of carrying agencies by those directly responsible for national prosperity. Private and public interests seem to coincide in requiring that no nation of an exporting rank such as is now held by the United States should delegate its maritime commerce to its national rivals.

The maritime arm of the distributive system, on which we are dependent for finding and holding such markets as our surplus needs, thus becomes part of the more complete commercial equipment which progress from an agricultural to a commercial nation has forced upon us. Until recently the emphasis was put on the home market in national discussion. Now we speak as world merchants and as world financiers. These comprehensive aims all tend to force surplus capital into a merchant marine, now that other channels of investment are no longer prejudicially profitable compared with shipping and shipbuilding. Between the home market and the world market the bridge of a national merchant marine is a logical necessity.

The present status of American shipbuilding has still further to be looked at from points of view that are peculiarly its own. The industry as it stands now is clearly connected in its development with the naval policy of the national government. This policy has resulted in calling into existence more shipbuilding plants operating on a larger scale and with more permanent conditions than the commercial demand succeeded in doing. It has drawn together mechanical equipment and engineering talent of a superior order to execute its contracts. It has distributed these contracts among shipyards on the seacoasts of the Atlantic and the Pacific in such a way as to equip every one of our great oceanic inlets, excepting those on the Gulf Coast, with superior shipyards. It has, by insisting that its vessels should be the products of

American skill and material, and of American model and design, attracted investing capital and constructive labor. All of these have helped to lay the foundations of a new order of things. It is true that the influence of naval policy is usually quite indirect in its effects on commercial shipbuilding, but the connection has been none the less promotive of industrial efficiency in this field. Competition among shipyards for governmental contracts has taken a wider range and been perceptibly keener with each successive award. Besides this general result, the high standard of workmanship required on governmental work has improved the grade and quantity of mechanical ability as applied to the building of steel merchant ships especially. Possibly there has been some disadvantage in turning a force of workmen from governmental work, where extreme carefulness is required, to commercial work where so high a degree of finish and nicety are not essential. But in the long run it cannot be disputed that the wholesale building of warships has helped to create large plants out of small ones and to develop the large ones to a point at which it is no longer industrially necessary to look to foreign shipyards for our merchant fleets of the future. A still more direct effect of naval policy upon commercial shipbuilding is seen where the mercantile auxiliaries constitute a feature of the merchant marine subject to naval service in time of war.

From what has already been said it is plain that our commercial prosperity has put us face to face with the shipping question. At present our financiers who underwrite our commercial organizations are buying foreign ships in the effort to bring railway and ocean rates of freight under common control. If financial considerations are allowed to govern in these consolidations of distributive agencies on land and on sea, as they undoubtedly will, it is not any longer a question as to where the ships will come from. One thing is certain, namely, that hitherto the ocean trade has not been in the habit of coming to the United States for its ships.

Now, however, that the demand for the establishment of a national merchant marine is heard with increasing insistence, the question of the capacity of the American shipyards to supply the ships is foremost.

Can American shipyards build merchant ships at a cost that will enable shipping interests to operate them in open competition with vessels from the older establishments of Great Britain or even with those of Germany? The answer to such a question involves comparisons very difficult to make on a common basis. The methods of work, the differences in design, cost of materials, wages, superintendence, interest, depreciation and insurance, expenses of operation and other items including the advantages of production on a large scale, have to be taken into account. One fact seems to be established beyond doubt, namely, that the first cost of an American-built ship is greater than that of a British-built ship of exactly the same size, dimensions and speed. The same seems to be true of German work. On this basis of capital cost, the depreciation, interest and insurance would probably amount to fifteen per cent per annum as fixed charges other than direct expenses of operation. If the American-built vessel cost \$1,846,800 and the British-built vessel cost \$1,419,120, these fixed charges would be respectively, \$277,020 and \$212,868, leaving the British-built vessel with an advantage of \$64,152 annual outlay on first cost. These figures are taken from actual examples of construction cost in leading British and American shipyards,¹ to each of which identical contracts were awarded for vessels of the same plan and type. If this single instance be not taken as conclusive evidence on the subject of relative cost, it is necessary to go farther to show that in dealing with the world-wide problem of shipbuilding for the ocean trade, the American yards and the European yards still stand on a quite different basis as competitors.

It would probably not be disputed that in bridgebuilding

¹ Report of Commissioner of Navigation, 1901, pages 23-24.

Americans easily lead the British and the Germans. And the unanimous opinion would be that it is the result of our experience during a half century of bridging streams under such a variety of conditions as to make us masters of almost any possible problem that may arise anywhere else in the world. Precisely the same may be said in explanation of the success of British and the relative failure of American shipbuilding. No field of commercial and industrial investment has been more liberally supplied with capital by the banks and the investing public than the shipbuilding and shipping interests of Great Britain. On the other hand, no American interest has been, until recently, so completely ignored as a rule by banks and investors generally as these phases of national enterprise—shipping and ship building. Until within a few years the American banker considered shipbuilding as an industry lying without the pale of legitimate investment. He belonged to a generation which knew nothing of the subject and cared less about it, when this field of investment was called to his attention. The history of American shipbuilding, like that of American farming, for the past fifty years is one of brave struggle to maintain an industry with a minimum of capital and hence a maximum of cost accompanied by the hazard of periodical depression. Financially it has been the most neglected of all our national industries.

Compare this with British shipbuilding, of which an experienced shipbuilder on the Pacific has said that it is the result of the very things we have not—prolonged and wide experience gained by shipowners and sailors, the embodiment of the principles of designing to meet universal conditions, the solution of problems worked out by the joint labors of naval architect, machinist, registration authorities and public criticism. American shipyards are still in the stage of adaptation to local conditions for the most part. On the lakes, within the limits of the local traffic requirements, the problems have been worked out as they arose with a high

degree of success. Likewise on the seaboard coastwise trade has preoccupied the attention of constructive progress, so that the cost has been brought within the limits of fairly profitable operation. But for the far greater problem of construction at a cost that will warrant investors in entering upon ocean competition, our shipyards have not yet proved themselves masters of their part of the situation.

In shop equipment American shops seem to excel in small tools and lifting appliances used in the handling of material. There are no such complete and economical methods of handling tools and materials by electricity anywhere in Europe as those of the Eastern Shipbuilding Company, at New London, and the New York Shipbuilding Company, at Camden, N. J. In large tools the American shop does not appear to be any better off. In engine building, as well as in the construction of the hull, the system of piece work is reduced to such a degree of precision in English shipyards that it is known or easily ascertained just what part of the total labor cost of a ship is to be charged to these parts of the work. Then there is a settled method of determining compensation for unit of product, while here no such uniformity has ever been agreed to. In spite of our advances in standardization in some directions, particularly in stationary engines, no such a complete system has been arrived at in the building of marine engines as that in British practice, where every part of an engine is gauged with precision to test the accuracy of the workmen's operations and the precision of the mechanics and tools used, so that without setting up the parts they may be sent to the ends of the earth with absolute certainty of fitting.

A comparison of foreign and domestic conditions leads to the impression that our shipbuilding industry is not evenly developed. In parts it is weak, as, for instance, in the development of standards of uniform cost of work. Higher wages per diem than is paid abroad still cover a multitude of sins of omission to organize work on the basis of results

accurately measured by uniform methods. In this direction there is room for development, if shipbuilding is to be brought up to the standard of organization in other industries. It has been stated that a standard-gauge system would reduce the cost of engine erection by as much as 50 per cent. Under American methods the same authority estimates that the labor cost on the hull of an average ocean going freight and passenger steamer, in an American yard, is 25 per cent more and the machinery 50 per cent more. Yet it is conceded that in point of quantity or output, in skill, in design, in handling machinery and in management our working force is superior.

Possibly the main reason for the difference in cost chargeable against our work lies in the variety of work which a shipyard has to do to keep itself going in the United States. Foreign shipyards have a continuous volume of work of a similar character, while our own yards work constantly on dissimilar designs and diverse specifications, so that it is the exception, rather than the rule, that the workman becomes familiar with his work from repetition of it in one ship after another. Almost every governmental order includes a more or less radical departure from previous specifications, so that naval requirements have hindered rather than helped toward reduction of cost by promoting similarity of type in construction. It is a matter of common knowledge that new types increase cost while standard types decrease cost. Protest after protest has been recorded against this mania for differentiation in type, but with little avail. In recently built merchant ships, both on the lakes and on the seaboard, the duplication of designs has become a matter of more frequent occurrence.

Another element of weakness in the shipbuilding situation in the United States is the large number of small and half-equipped yards and the small number of well-established ones. Excepting the Cramp shipyards, at Philadelphia, and possibly a few of lesser note, the United States has never

had a plant which devoted itself exclusively to this business without sooner or later meeting with financial failure. This is the record of the past twenty-five or thirty years. When demand for ships fell off the small yards have gone out of business for the time being. When prosperous trade called for more ships these very yards were given the contracts. In this way the burden for conserving and developing shipbuilding skill fell almost wholly on the few yards which remained in the business all the time. The wonder is not that we cannot build ships so cheaply as they are made in foreign yards, but that we can build them as well as we do under such conditions. The readiness with which a new plant can be called into existence, or an abandoned one revived, to get contracts is one of the marvels of this industry to foreigners.

It would not be fair to shipbuilders to omit one of their greatest difficulties in their attempt to develop their industry, a difficulty, moreover, which lies beyond their power to remedy under existing conditions of organization. No single element has been more embarrassing than the fluctuation in the prices of steel plates and angles. The price of shipbuilding steel has been known to increase 250 per cent in four months. This has no doubt somewhat abated, but on so high a level of prices as not to encourage the domestic manufacture of steel ships. British builders have the advantage of the steadying influences of the world's competition on prices of steel materials. For that reason they need never fear American competition in this field under existing differences in the cost of structural material. The high prices of steel material at home have no doubt something to do with the fact that on the seaboard 43,557 gross tons of wooden schooners and steamers were built last year, compared with 73,374 gross tons of steel steamers.

Nevertheless American shipbuilders and architects have made wonderful progress within a decade. They have gathered together the experience of the world on the subject. They have worked diligently and often unnoticed at every

phase of the problem. They have demonstrated their ability to design and construct, in the most satisfactory manner, with regard to time and efficiency, standard types of vessels for naval and mercantile service. Among the distinct contributions of this country to the making of ships should be mentioned the application of electrical power to the operation of machinery tools, cranes and other hoisting and handling methods, and the invention of small power tools, such as riveting, chipping, caulking and drilling appliances. All these advances lie in the direction of reduction in cost for unit of output. From this point of departure in further development two tendencies are at work. Within shipyards a more economical organization of the productive processes is going on to reduce costs by eliminating the unessential and by putting the emphasis on the essential elements of outlay. Such a process is slow and its results are not so quickly diffused from plant to plant as might be expected, notwithstanding the splendid spirit of comity among rival shipbuilders. The other tendency lies outside of the industry itself in the reduced cost of making shipbuilding materials, and in the growth of the demand for ships as a necessary extension of our distributive system. The problem of reducing the first cost of ships to the European level will have been solved when the annual output of our ship yards is five times what it now is. It is all a question of the volume of demand required by national development. The joint outcome of these two tendencies is inevitable. Meanwhile, in spite of all drawbacks the outlook is not only encouraging, but inspiring. Our national outlook has shifted to the sea politically, geographically and commercially. With this fact once fixed in the national consciousness clearly enough to see its connection with our past history and our present opportunity, it is not probable that any time will be lost in higgling over the terms on which these instruments of maritime power shall be called into being.

JOHN FRANKLIN CROWELL.

Washington, D. C.

GOVERNMENT OWNERSHIP OF RAILROADS.

The object of this paper is merely to outline, without elaboration, some of the arguments for and against the public ownership of railroads.

For the Government of the United States to acquire the two hundred thousand miles of railways already constructed, undertake to conduct their vast operations by direct agency and extend the service with needful rapidity, is a project of such colossal import as to incline us to place it quite outside the range of probability. Nevertheless, it cannot be put aside as a purely speculative problem, for already there are many ardent advocates of the policy. In the rapid advancement which displays itself on every hand, not only in the methods of industrial production but in the aims and aspirations of our people, no one can tell how soon we may encounter a widespread and insistent demand for the public acquisition and management of our entire railway system. Moreover, as the nature of transportation is more clearly perceived, and views enlarge as to the functions which government may usefully exercise, it is to be expected that the argument in favor of railway nationalization will become more attractive and convincing. Private opinion and judicial utterance agree that railroads are public highways, having the same essential relation to social order as the streets and avenues which have been dedicated to public use and always controlled by the state as matters of primary and common concern. Therefore, public ownership and operation of our railways is chiefly important in its economic aspects; it is simply a question of expediency.

What may be called the political objection is naturally the first to occur. This objection takes a twofold form. In the first place, it is said that the public ownership of railroads is opposed to the traditional policy of our government and

the historic development of its institutions. While the doctrine of *laissez faire* was not, even at the outset, fully adopted, still the general sentiment of our people has deprecated the extension of state functions and discouraged any radical inroad upon spheres of action occupied by private enterprise. Besides, it is claimed that such an enormous increase of public activities would overtax the power of successful management and bring about a serious disproportion between public and private operations. To say nothing of the difficulties involved in the acquisition of these properties, the task of their administration would be so tremendous, and so liable to be poorly performed, as to endanger the business balance which now seems fairly well maintained. The weight of this objection is conceded, the satisfactory answer to it not easily made. We hardly see how the roads could be taken over gradually, thereby allowing for growth of experience in unaccustomed duties; apparently the entire system would have to be acquired at once, or within a comparatively short period, without time for adequate preparation. Still, we are not quite willing to place limits upon the ability of a people so intelligent and resourceful as our own. We may well claim that they have proved themselves equal to every demand, and that even this gigantic task is not beyond their capacity. The enlargement heretofore made in the field of public performance has been justified by results, and it may be confidently asserted that our government has up to this time assumed no function or activity which we would consent to have it abrogate. Nor can we deny as an abstract proposition that a self-governed people, worthy of their heritage and opportunities, may best realize their ideals by collectively doing more and more of the things which affect the public welfare.

The other form of this objection is the danger of abuse through party control of such vast properties, representing so large a share of the wealth now in private hands, and the enormous voting strength of a million or more of railway

employees. That this objection is a serious one cannot be denied. Such experience as we have had is hardly sufficient to relieve our apprehension. True, there is now a considerable army of government employees, and their influence upon the results of elections is scarcely appreciable; but what would happen, for the time being at least, if all the railway employees of the country suddenly became government servants, no one can safely predict. We may believe, however, that the nature and magnitude of their work would so emphasize the necessity of stringent civil service rules, and popular sentiment would so emphatically condemn any attempt to use the railway employees for political purposes, that the danger in this direction would be far less than many imagine and would not be long in disappearing. For myself, I do not regard this objection as serious enough of itself to decide the question in favor of private ownership.

This view is confirmed by the fact that railways now exert a powerful and often decisive influence upon public affairs. That influence is not confined to the control of votes upon election day, but extends to the conduct of primaries, the organization and sometimes the corruption of legislative bodies, the selection of appointive officials of every grade, and the enactment and administration of local, state and national laws. It is always alert, aggressive, selfish; it is sometimes unscrupulous and demoralizing to the last degree. We may well question whether government ownership would under any circumstances introduce into American politics a more vicious or dangerous force than railways now exert.

It goes without saying that there are serious evils connected with existing railway methods. The roads have been built by private capital and conducted for the most part as private enterprises. The principle of competition has been upheld by public opinion and enforced by state and national laws; yet the obvious results of that competition are discriminations which favor the few at the expense of the many, and which are a serious and often fatal disadvantage to those

who are denied favors which others enjoy. Capital always takes advantage of competition, and nowhere is that advantage greater than in the use of railway facilities. Almost any price may be profitably paid to secure immunity from practices which now prevail. Government ownership would undoubtedly remove these discriminations. It would insure open and stable rates, applied to all alike without variation or exception. The price of transportation would be as certain and unquestioned as the price of postage stamps. There might be some frauds in underbilling, false description of property, and the like, as there are frauds upon the customs and internal revenue laws, but adequate penal provisions and vigorous prosecution of wrongdoers would reduce offences of that character to a minimum. It would be a question of only a little time when all secret and preferential rates would disappear and equal treatment be accorded for equal service in all cases. This would be an immense gain, and herein lies perhaps the most persuasive argument in favor of public ownership. As against this, however, there would unavoidably be a certain rigidity of rates which would to some extent interfere with the ready adjustment of charges to changing commercial currents and the varying conditions of supply and demand. It is not probable that under a system of public ownership there could be quite the same adaptability of rates to business requirements as obtains under private ownership.

In addition to uniformity and equality of charges which would result from government ownership, the advocates of that policy claim other advantages which deserve consideration. One is the security of capital which would be invested in the obligations issued to purchase the roads. There is something to be said in favor of a national debt when the creditors are citizens of the debtor state and the holders of its promises to pay. As the basis of currency issues, as an investment for savings banks, trust companies, estates, and the large class of persons who are not fitted for active employ-

ment, there is apparently nothing better than government bonds. Indeed, it is difficult to provide a substitute security for these various and important purposes and others of similar character. If the railroads were self-supporting, that is, earned enough to pay the interest on their cost, provide for their running expenses, maintenance, extension and improvements, with rates at least equally as low as would be secured under private ownership, the obligations incurred in acquiring the properties, whether in the form of bonds or guaranteed stock, would meet an increasing demand and prove a safe and stable foundation for our financial system.

But more than this, the elimination of railway securities as they now exist would, it is claimed, produce much indirect benefit. These securities are at present among the principal subjects of speculation. The prices at which they are sold constantly fluctuate and often represent something quite different from the actual value or earning capacity of the roads. The gambling instinct is stimulated by sudden and extreme changes in quotations, with the consequent opportunity to make large gains quickly, while the corresponding losses are equally sudden and disastrous. To get rid of all this manipulation, to withdraw these securities from the exchanges and stop all speculation in railway shares, would seem to be a distinct advance in the direction of business morality. When fortunes could no longer be made by dealing in this class of stocks, the capital and ability now devoted to that pursuit would be turned into more legitimate channels. It might prove an object lesson of immense value. We scarcely realize the demoralizing effect of this many-sided lottery. The fact that fortunes are quickly acquired in this way excites the passion for gain and breeds discontent with the plodding methods of slow accumulation by diligent labor and constant economy. The moralist, as well as the economist, may find something worthy of reflection in the point here suggested.

It is further claimed that public ownership would secure

lower rates of transportation. Theoretically, this is true, but whether that result would be realized as a matter of practical experience is more than doubtful. It seems to be the case everywhere, and is likely to be for a long time to come, that government service costs more in proportion to the work performed than private service. It is quite conceivable that the railroads of this country could be made to pay interest, say from 3 to 4 per cent, on their fair valuation, in addition to all their expenses, with a general scale of rates somewhat below the present standard. Given the same efficiency of management, the same energy and economy of administration, the same basis of wages and salaries as obtain under private ownership, and a considerably smaller charge than is now paid per unit of service would be sufficient for financial solvency. But this assumes a state of things not likely to exist if the railroads were operated as a government function. Any expectation to the contrary is not warranted by knowledge of what has generally characterized the various branches of government service. 268

Public ownership would doubtless mean higher wages and shorter hours of employment, but this again would mean an increased number of servants, adding materially to the cost of maintenance and operation. Upon this point it is often remarked that enormous salaries are paid to railway presidents and other officials, and that outlays of this sort would be stopped because no similar scale of compensation would be paid to government officials performing like duties. This argument, however, is rather specious and is used mainly by those who have made no calculation to see how small a figure it cuts in dollars and cents. Without having made the computation, I venture to say that if all railway salaries above \$5,000 a year were discontinued the saving would not be appreciable in the price of a railway ticket or the cost of moving a hundred pounds of freight.

With reference to future construction and the extension of railway lines a word may be properly said. That there have

been many instances of needless duplication of railway lines, actually or nearly parallel, is perfectly well known; but government ownership would not correct mistakes that have already been made in that regard. The roads would remain where they were built and their continued operation would practically be necessary. In constructing additional roads a more rational plan might be followed and a repetition of past follies avoided. But here again we run against political objections. On the one hand is the danger that too great conservatism would prevail, with the consequent failure to supply extensive and developing sections of the country with needed facilities. On the other hand is the danger that there would be an over-production, having reference both to cost and to public requirements. More than this, the building up of important lines, or their extension in certain sections, might become a political issue. We cannot be sure that the development of our railway systems by the government would be guided by needful wisdom and fairly balanced as between the demands of localities and justice to the tax-paying public. On the whole, we may conclude that the distribution of our railway mileage, both with reference to territory and population, has been fully as rapid, judicious and satisfactory as would have been the case if the government had constructed the roads and determined from the first, their number, character and location.

And in this connection I suggest a phase of the subject which has not apparently received much attention. It is not enough that open rates are published and rigidly observed. That of course insures equality of treatment as between individuals in like situation, a result that would certainly be secured by public operation of the roads. But there is another aspect of the rate question which presents far greater difficulty and which is wholly independent of railway ownership. The fair adjustment of rates as between different communities and different articles of traffic is a matter of the highest consequence, because upon that adjustment

depends the most commanding commercial interests. If the state owned the roads all secret discriminations would disappear, but then as now the question would arise, for instance, how rates on wheat should compare with rates on flour; how rates on dressed beef and packing house products should compare with rates on live animals; how rates on grain and grain products, produced in the great Middle West, to north Atlantic cities should compare with rates on the same articles to ports on the Gulf of Mexico. These and an endless variety of similar questions would demand solution under government ownership precisely as they demand solution at the present time under private ownership. And the danger is that those questions would become political issues to be settled by the action of the majority party. I can see how railway officials and employees, all being government servants, might be kept out of politics, or at least prevented from exercising any undue or improper influence upon policies and elections. I can see how a trained and efficient force might be equal to the complicated task of management and operation. I can see how the financial difficulties could be overcome and rates so adjusted to needed revenue as to save the people from any indirect taxation for railway support, and at the same time give them extremely cheap transportation. But I have grave apprehension along the line now suggested. More and more as modern industrial methods are applied and perfected, as business is conducted upon an enlarging scale with a narrowing margin of profit upon each unit of production, more and more will the question of relative rates become controlling. Shall coal be taken to Chicago from Indiana or from West Virginia? Shall iron and steel products be manufactured in Pittsburg or in Cleveland? Shall export traffic leave the country by way of New York or New Orleans? Shall wheat be made into flour at Minneapolis or Buffalo? Shall certain localities be supplied with oranges from California or from Florida? Shall sugar be made from beets grown north of the Ohio and

Potomac rivers, or from cane in Louisiana or Hawaii, or Cuba and Porto Rico? Will the Pacific Coast jobbers who are reaching out for the trade of the Orient get their supplies from the Mississippi Valley or from the Atlantic seaboard? Will those supplies be carried by rail or by water? These and a thousand similar questions will be largely answered by the rates fixed for carrying the traffic. If the government owns the roads and operates them, Congress may fix the price of transportation as it now fixes the price of postage or the internal revenue tax on any article; and it is conceivable that, as the result of an election or in the redemption of party pledges, a system of rates might be adopted which would enormously benefit one or more sections of the country whose representatives combine to that end, while placing other sections at serious disadvantage. In this direction I see the greatest difficulty, and it is on this ground, more than any other, that I should regret to see the government take up the business of owning and operating our railway lines.

There is another and distinctly economic phase of the subject from which arguments may be drawn both for and against the nationalization of railways. Indeed, it leads to the most interesting reflections because of its wide significance and permanent character. On the one side it is said that to withdraw this immense industry from private enterprise, and make our transportation a government monopoly, would seriously restrict the field of private activity and in a way leave insufficient scope for individual effort and achievement. It is opportunity that furnishes inducement to action, because of the rewards that may be secured; and where opportunity is lacking there is corresponding temptation to idleness and ease. When we consider how many men win wealth and prominence in connection with the building and operation of railroads, or through their relation to reorganizations and consolidations, we can see that there is an element of disadvantage to the ambitious, not to be

arg for neg.

lightly regarded, in taking so great an industry from the field of private performance. What the actual effect would be we can only conjecture.

Against this, however, two things may be said. First, as a practical matter, we may believe that ample opportunities for success would be found in other directions. Our territory is so great, its resources so varied and exhaustless, there are so many new things to be done, so many prizes to be won in other spheres of activity, that the withdrawal of all railway operations from the field of private enterprise would not seriously handicap the determined and capable. Indeed, as incidental to this point of view, it may be remarked that the stability and certainty of transportation charges under government ownership would give a freedom to individual effort which very many under present conditions do not enjoy. If the facilities of rail conveyance were available to all persons on like terms, so that the burden of transportation rested with equal weight upon competing producers and dealers, there would be a liberty of private action which often does not now exist, for the like enjoyment by all of this public service would remove the bonds by which many an industry is to-day hampered and many an occupation deprived of its rightful privileges.

But there is a further and more important consequence to be taken into account. We are constantly reminded of the gross inequality in the distribution of wealth, and see in the facts of every-day life much cause for dissatisfaction in this regard. We feel tolerably sure that a more equable division of property would be a great social and economic benefit. If this be desirable, as I think it is, how can it be brought about except by withdrawing from private enterprise those activities of a public nature whereby great private fortunes are and have been acquired. There is no honest way of getting rich in connection with an industry conducted by the public. If the railroads were acquired by the state and conducted as a government monopoly the opportunity for money

making in that field would of course disappear. Granted that this might work in some cases against individual success, yet on the whole might it not prove a needful corrective of present tendencies, and thus indirectly but certainly lead to a better because more even distribution of the nation's wealth?

Consider, for example, what has occurred within the last few years in the street railway service of cities. The recent substitution of electricity for animal power furnished an opportunity which a few foresaw, and they have been greatly enriched by exploiting a public franchise. That the public has had the benefit of much better service without increased cost is beside the present question. The point is that had those franchises not been granted, had they remained the possession of the public, the great fortunes made in street railroading would have been impossible. It may be better as it is; the municipal ownership of street railroads might not have been a financial success or a public blessing, but a small group of persons would not have been able to accumulate unusual wealth. If, in the long run, it makes for the general welfare to prevent the quick and easy making of private fortunes in connection with public service, what other course remains except to emancipate all forms of public service from the domain of private enterprise.

If we test the utility of public ownership by the experience of other countries we find little that is convincing either one way or the other. On the whole the tendency is strongly in that direction. And this tendency, it is interesting to observe, is quite independent of the form of government. For instance, there is Germany, which the ordinary person regards as the nearest to a monarchy of any great modern state, which already owns and operates a large portion of its railways and is apparently aiming to still further extend its railway operations; and right alongside of Germany is little Switzerland, which we picture to ourselves as about the most democratic of modern governments, which has recently

acquired all the railways within her territory and is to conduct them as a government service. The step was taken only after long deliberation and under a proceeding which reflected the unquestioned preference of the Swiss people.

From such countries as Australia and New South Wales conflicting accounts are received, varying largely, it would seem, from the point of view and preconceived notions of the observer. Within the last few months I have had occasion to meet men from both those countries who are thoroughly well informed, not only as to the operation of their railroads but as to the sentiment of their people, and I was assured that the idea of discontinuing public ownership and allowing the railroads to pass into private hands would find no support in public opinion or be regarded as among future possibilities. It is true, the conditions existing in other lands are quite different from those encountered here. This is so not only as to the character of the population and industries, but also by reason of the traditional sentiment and attitude of the people towards their governments. In England, as is well known, the geographic and other conditions are quite unlike those existing here. More than that, there has been in England from the beginning a more rigorous control of railways than in this country, while various causes have brought about to a great extent a division of territory between different railway systems, so that competitive forces have been kept under efficient restraint. The discriminating practices which are here so prevalent and alarming are there virtually unknown.

It is a great question, one upon which the last word has not by any means been said. That it will be more and more discussed I am very certain. That it will become an early political issue I do not expect and assuredly do not desire. But as was remarked at the outset, no one can tell how soon it may be forced to the front and absorb the attention of the country beyond all other matters of public concern.

One thing an aroused and dominant sentiment will surely demand, and that is the doing away with those vicious discriminations which have characterized and often disgraced our railway operations. Such offences against right and justice will not always be tolerated. If consolidations and unified management bring open and reasonable rates, if more intelligent and adequate laws aid the elimination of abuses and give success to the work of public regulation, the agitation for state ownership will not for a long time make perceptible headway. That is the outcome which seems plainly the most desirable. If it can be secured through associated action and efficient supervision, the public will be satisfied to leave the railways in private hands; but if abuses continue and chronic evils prove incurable by methods we much prefer to use, then there will be no alternative except to acquire and operate the railways as a government function. If regulation fails public ownership will be the next and early resort.

MARTIN A. KNAPP.

Interstate Commerce Commission, Washington, D. C.

ADVISORY COUNCILS IN RAILWAY ADMINISTRATION.

The bill pending before Congress, to establish a department of commerce and industry under the direction of a secretary who shall have a place in the cabinet, and the probability of this bill being enacted into law, have suggested this paper on advisory councils in railway administration. Whatever else the new department may or may not include, it is hardly conceivable that it will be permanently organized without having assigned to it some functions with respect to railways. As a cabinet officer, the new secretary will be impelled to take and to maintain a national point of view, taking into consideration all the important factors necessary to make the railways of the United States valuable properties as well as the most useful public servants.

It has been truly said that the world was born again with the introduction of railways. Many changes in industrial, commercial, social and political relations followed, and have continued to come, so that every succeeding day brings us a new world with its changed relations, calling for continual readjustment to these new conditions. In this process of readjustment there takes place a conflict of diverse and antagonistic interests, the weaker or less important yielding to the stronger or more important. The assertion that the interests of the railways and of the public are harmonious and identical cannot prevent conflicts, for neither the entire public nor every railway manager will view the situation in this light. There certainly exist elements of harmony in the interests represented by the railways on the one hand and by the public on the other. For instance, a railway company extends its system into new and remote territory, thereby increasing the value of the lands and other property

in that territory. A new source of supply has been tapped and the traffic of the road is proportionately increased. With the increase in traffic and the rise in value of other property in that territory the railway property becomes more valuable, and thus increases the sources of public revenue. Up to this point there exists harmony; but the possibilities of a conflict of interests must not be overlooked. The railway property having become very valuable, the authorities of the state may assess this property to a degree which the railway authorities regard excessive; or the railway company may levy a transportation charge which the public considers excessive, or it may give preferences to one industry or place or productive area over another industry, place or area.

This lack of harmony between the two great parties may be due to a lack of mutual appreciation of each other's rights and privileges; it may be due to ignorance, to unscrupulousness, to intrinsically irreconcilable points of view, to extraneous factors over which neither can exercise control, or to numerous other contingencies. Whatever the cause, the possibility of a conflict usually exists in those elements of railway transportation which are not embraced in that part of the business representing purely harmonious and identical interests. This paper will be devoted to suggestions for arriving at a better understanding of questions in dispute and for facilitating the exchange of views and conciliation of interests on the part of all the factors involved in railway problems.

Before entering upon a discussion of these suggestions, three propositions will be stated, which the writer regards incontrovertible, but which he shall not discuss in this connection, although he is prepared to support them with ample evidence and without fear of successful contradiction. These propositions are:

1. That the present situation with respect to railway affairs in the United States is untenable and indefensible.
2. That the great majority of the railway managers and

other railway officials are sincerely desirous of administering, to the best of their abilities, the properties under their control in the most efficient manner, having due regard for the interests of both the stockholders and the public; but that all the various interests affected by their action are not represented in proportion to their importance, if at all; and that consequently injustice may be done.

3. That there is nothing in the present statutory and administrative regulation of railways to prevent the arbitrary and harmful action of the weak or unscrupulous manager from defeating the desires of the majority of the officials who would voluntarily pursue a more beneficent course.

In the Annual Report for 1898, the Interstate Commerce Commission said: "The situation has become intolerable, both from the standpoint of the public and the carriers. Tariffs are disregarded, discriminations constantly occur, the price at which transportation can be obtained is fluctuating and uncertain. Railroad managers are distrustful of each other and shippers all the while in doubt as to the rates secured by their competitors. . . . Enormous sums are spent in purchasing business and secret rates accorded far below the standard published charges. The general public gets little benefit from the reductions, for concessions are mainly confined to the heavier shippers." That the situation here described is as oppressive to the railways as it is odious to shippers no one will doubt. In view of this prevailing demoralization, the Commission called conferences with railway presidents during the following year which appear to have accomplished considerable good. At a time when published tariffs constitute little more than "a basis from which to calculate concessions and discriminations" anything which is likely to assist in re-establishing order must be approved.

The Commission chose a plan which is of wider application and which is of importance in its bearing upon the subject of advisory councils; for what were these

conferences but modifications of the advisory council system? In extending invitations to officials, neither existing nor former railway associations were taken into consideration. "The selection in each case was made with reference to the territory in which different connecting and competing lines operate, and the rate conditions in that territory, and not with reference to the relations of the carriers through organized associations or otherwise." Nor were attempts made to carry out a system of individual conferences; not only because this would consume much more time, but also and chiefly because "each road in promising to observe its own tariffs, and intending in good faith to keep that promise, needs the assurance that its competitors will also in good faith observe their tariffs." Mutual and concurrent promises, says the Commission, are necessary to secure conformity to the Act to regulate commerce. This is but another way of expressing a part of the third proposition formulated above. As for practical results, "the Commission believes that the propriety of holding these conferences has been fully vindicated by the results which have followed." Editorials in the *Financial Chronicle* and other leading journals comment favorably on the probable influence of these conferences.

The conferences between the Interstate Commerce Commission and railway officials represent efforts aiming primarily towards a better understanding among different railways, leaving the equally important and larger question of the relation of the railways to the great diversity of interests in their respective territories essentially without adequate expression, even if these conferences were to be made a permanent feature in railway administration. Conferences representing *all* the varied interests affected by railways, which means practically the whole population, must be provided for before a complete exchange of opinions and mutual understandings can be secured. The railways have by no means been entirely neglectful of this important work. Special agents

have been sent out by them to make a careful study of the industrial and social conditions of the territory through which their respective roads pass, and to "explain the attitude of the railways and to learn conditions." In *Harper's Magazine* for February, 1901, mention was made of a general freight agent who has associated with him 100 assistants who instruct and educate the people in the knowledge that makes for the prosperity of the railways and of the agricultural and industrial classes. Railways have studied soils and given instruction to farmers in stock and grain raising, dairying, gardening, market conditions, and business methods. They have maintained a large specialized class of employees to assist in developing the resources of the territory through which they run, and have in this manner increased appreciably the variety, quantity and quality of the commodities shipped out of the respective states. Railways have employed industrial commissioners, land inspectors, horticultural agents, superintendents of dairies and a host of similar officers whose functions are chiefly, if not solely, economic and social, and whose existence is in itself ample evidence of the necessity of providing some means by which the social and economic interests of the country can be brought into close and harmonious relations with the railways.

On the other hand, chambers of commerce, boards of trade, business men's associations, agricultural societies and analogous organizations have maintained departments, bureaus, secretaries, or standing committees on transportation, with the view of guarding and promoting the interests of their respective clienteles, in so far as these may be affected by railway transportation. Delegates and committees have held conferences with railway managers and other railway officials. Resolutions have been passed and laws proposed looking toward a change in the existing relations between the railways and these people. But such efforts have usually been one-sided, emanating either from the rail-

ways or from the shipping public, acting independently of one another, with perhaps little accurate knowledge of each other's points of view. There exists no regularly constituted middle ground on which the two parties can meet and deliberate, on the basis of authentic facts, and arrive at conclusions just and satisfactory to both and in accordance with the needs of the whole population, viewed in the broadest possible light.

Having seen that both the railways and the public have been feeling for each other, but that an uncovered suture still remains between them, the writer ventures to suggest a plan which may at least serve as a point of departure for the discussion of the wide and momentous questions involved, and possibly the plan may embody elements capable of elaboration into permanent arrangements. It should be understood, however, and this the writer desires expressly to emphasize, that his plan is suggestive only, that it is not given with dogmatic assertions as to its practicability, nor with the inference that it is complete and perpetual. Many conferences will have to be held, numerous hearings given, much deliberation engaged in, and a multitude of facts considered before a final working plan can be adopted. The interests involved are so enormous, and the possibilities of a conflict so great, that nothing but a large, tolerant and analytically accurate view can meet the situation.

The leading features of the plan here suggested are the following: The establishment by law of a system of state and interstate councils, having advisory power only, and representing all the various interests of the entire population as far as practicable. State councils might be organized in connection with state railway commissions, where these exist, or independently in those states which have no commissions. The size of state councils might vary with railway mileage, and the number and importance of the existing commercial and agricultural organizations. Both the elective and the appointive principles might be applied, the former

to insure representation and the latter to secure expert knowledge and specialized efficiency. The proportion of appointive to elective members might be made to vary whenever adequate reasons for such variation are properly presented to the secretary of commerce or other higher official, although at least three-fourths of the aggregate membership should perhaps be made elective. The governors of the respective states naturally suggest themselves as proper officers to exercise the appointing power with respect to state councils, and the President of the United States, through the secretary of commerce, for interstate councils. The elective members should represent, in addition to persons representing the railways, all the various state organizations which meet prescribed requirements existing within that state, and which have primarily intrastate significance. Among these societies may be mentioned boards of trade, chambers of commerce, exchanges, business men's associations, associations of lumbermen, grocers, butchers, foundrymen, all the various manufacturers, dairymen, fruit growers, agricultural societies, etc. The members to be appointed by the governor might be selected partly with the view of equalizing the representation of different interests. No paid officials would be necessary, with the possible exception of a permanent secretary, who could be attached to the office of the railway commission or some other high administrative officer. It would not even be necessary to pay the expenses of the council out of the public treasury, for a small tax on the organizations represented, which their interests could doubtless well afford to pay, would be sufficient to defray the expenses of the representative. Certainly no salaries or per diem rates ought to be paid out of public funds during the formative period of the councils. If future development should demonstrate the desirability of payment to members the law could be modified to meet the situation. Periodical meetings should be provided for, perhaps quarterly, and the interval of time between the meeting of state and interstate

councils should be sufficiently long to enable the latter to review thoroughly the proceedings and recommendations of the former. All meetings should be public and the proceedings printed.

The territorial basis of interstate councils is not so easily defined, because of the different things which may be regarded as fundamental in such a division of the area of the United States. The Interstate Commerce Commission has adhered to its original classification of railways into ten groups, based upon topographical considerations, density of population, nature of industrial life and competitive conditions, although, in regard to the last, the Commission expressed itself as unable to discover system in railway competition at the time the classification was made. To organize one interstate council for each of these ten groups would make the higher councils too numerous, and, under present conditions, it would hardly bring together representatives of those roads which belong together from the point of view of ownership and of rivalry in the same productive areas. A second possibility, is the organization of an interstate council for each of the systems of railways, among which a community of interests has been established. But this, too, would involve ten or a dozen councils and an administrative separation of railways which belong together. The third, and what appears to be the most feasible plan, is that of accepting the present territorial limits of the dominating freight classifications and organize an interstate council within each of them, with the possible division of the territory west of the Mississippi. This would make three interstate councils; one north of the Ohio and Potomac rivers and east of the Mississippi; the second south of the Ohio and Potomac rivers and east of the Mississippi; and the third for the territory west of the Mississippi. The distribution and election or appointment of members should be governed by the same principles as those which have been suggested for state councils. Each of the great railway systems should have

representatives, perhaps on a mileage basis. The great national associations, such as the millers', builders', druggists', grocers', liquor dealers', etc., might be requested to send a representative to some one of the three interstate councils; and, finally, the state councils lying within any one of these interstate divisions should elect representatives to membership in the higher council. In case a state lies partly in one and partly in another interstate district, the secretary of commerce or other officer might designate the proportion of representation to be allotted to each part, in accordance with law. The proceedings should also be public and published by the government. The Interstate Commerce Commission, every member of which should be made *ex officio* a member of the interstate councils, might supervise the publication of proceedings.

The aim of the suggested plan is obvious: to represent all the varied interests of our population *in an advisory capacity*, in the conduct of our railways. These councils are to be clearing houses of information through which the railways and the public will learn to know each other's interests better, and through which the material interests of both of these great parties will be built up in accordance with principles of justice and equity. Every attempt to interfere in the purely business management of a railway should be resisted; but every attempt on the part of a railway to disregard the just rights of the public should likewise be promptly checked and thoroughly ventilated in the councils. The authenticated facts which such councils can bring together and the publicity which is to be given them cannot help but exert a powerful influence in educating the public in railway affairs and enlighten the railways on the interests of the public. By giving councils only advisory powers, the legal responsibility still remains where it belongs—in the hands of the railway officials. The advice and recommendations of councils need not be followed, but at the next meeting of the council the manager in question can be called

upon to give the reasons for his action; and with well-informed representatives about him, nothing but the truth can prevail. In this lies one of the greatest benefits to be derived from such a scheme, and it is difficult to conceive of a more potent factor in protecting the railways against each other, and in visiting obloquy upon the one weak or unscrupulous manager who persists in defeating the best plans of the one hundred who would adhere to principles of justice without legal compulsion.

The secretary of commerce has been mentioned in several connections, assuming that such a new cabinet office is to be created. It is to be hoped that such will be the case, and the proposed system of railway advisory councils be given a place in this new cabinet office. Should, however, Congress not see fit to establish a department of commerce the suggested councils could nevertheless be fitted into the present order of things by making the Interstate Commerce Commission the head of the advisory system. The Commission, being hard worked already, could perhaps exercise only directive and supervisory powers over the councils, but some officer in the offices of the Commission, or to be added to the Commission, could be intrusted with the detailed management of the council system. *The council system, as proposed, fits into the present order of things. There is nothing radical or disorganizing about it. It simply aims to bring together into one harmonious system the various isolated, independent efforts which have long been made by many railways in the United States and by private organizations. It aims to do systematically and well what is now attempted without system, in a manner more or less one-sided.*

Institutional history is largely the history of transplanted custom and law. The most fundamental institutions of American civilization find their origin in the remote history of European peoples, and scores of existing statutes, state and federal, are mere adaptations of foreign law to conditions in the United States. The suggested plan for railway coun-

cils is in harmony with this feature of our civic development. Advisory councils have been in successful operation in various countries, and any one who will take the trouble to look into their history will probably be convinced of their efficiency and beneficence. While most contemporary systems of councils exist in connection with state railways, *the advisory system finds its origin in private initiative*. About the time our granger agitation had reached its zenith, and when the Hamlet of the play had made his appearance in the form of the Potter law of Wisconsin, the Chamber of Commerce of the city of Mülhausen arranged for a conference between its representatives and representatives of a railway upon which that city was largely dependent. The result of the conference was so encouraging that it attracted the attention of a high state official, who immediately recognized the intrinsic merits of the plan and took action with the view of embodying its principles in a permanent institution. "This arrangement," says the minister in a circular letter, "primarily strives to establish intimate connection between the places intrusted with the administration of the railways and the trading classes. It will keep the representatives of the railways better informed as to the changing needs of trade and industry and maintain a continued understanding between them; and, on the other hand, it will impart to commerce, etc., a greater insight into the peculiarities of the railway business and the legitimate demands of the administration and consequently, by means of earnest and moderate action, it will react beneficially upon both sides through an exchange of views." It was only a few years later, 1882, when Prussia established her system of advisory councils, which twenty years of experience has demonstrated to be most excellent. There are circuit councils and a national council, the former constituting advisory bodies of the different railway directories in whose hands legal responsibility rests, and the latter being advisory to the minister of public works, who is the highest legally respon-

sible railway officer. The circuit councils are more local in their nature and vary in size from about twenty-five to three times that number. Membership is chiefly elective. The national council is composed of forty members, of whom ten are appointed by the minister of public works and thirty elected by the circuit councils. The councils may be called upon to deliver opinions on questions submitted to them by the proper officials, and they may, in turn, institute inquiries and make recommendations on their own motion. They have no legal power over the administration of railways, except in this advisory capacity, and full freedom is granted to railway officials to act as they deem best in the management of railway properties.

Japan was the next country to establish an advisory council by law. The Japanese council is composed of not more than twenty persons, representing the cabinet departments, both houses of parliament and, for special purposes, members with limited tenure, who serve as experts in the council. The powers of the council relate to questions of location, construction, financiering and operation. While the department of communication and other branches of the government may direct inquiries to the council, the latter may also act on its own initiative and bring its conclusions and findings before the proper officials. A comparison of Japanese with Prussian councils shows important differences in their composition. Under the Prussian law bureaucracy is guarded against by the exclusion from the council of all immediate state officials. In Japan the law specifically provides for the inclusion in the council of cabinet officers and members of the legislature. Under the Japanese system it is possible to pack the advisory council with persons in harmony with the government, which *may* destroy the value of the council. While avenues of communication between legislatures and advisory councils should be kept open, the law should make it impossible for members of the legislature and state officers to hold a seat in an advisory council. State

legislatures and congress may wish to act on the findings of fact or recommendations of advisory councils, and if the membership of councils and legislatures can be made essentially one, the advisory nature of the councils will be annihilated. The exclusion of public officers and legislators from councils should be insisted upon.

In Switzerland, circuit councils and an administrative council were instituted by the federal law of 1897. Circuit councils embrace from fifteen to twenty members, of whom the Bundesrath elects four and the cantons eleven to sixteen. The higher or administrative council numbers fifty-five, of whom twenty-five are elected by the Bundesrath, an equal number by the cantons, and the remaining five by the circuit councils. The law expressly provides that in these elections agriculture, trade and industry shall be properly represented.

These three—Prussia, Japan and Switzerland—are the only countries in which advisory councils have been created by law. In a large number of other countries similar councils have been established through administrative agents, the composition and functions of the councils following the principles of the Prussian system. For a quarter of a century France has had a consulting committee of forty-five which is quite similar to the Japanese council in that its members are not elected but appointed chiefly from officials and members of the legislature, and that social and economic interests are represented only to a limited extent. The functions of this committee relate to approval of rates, construction of laws and ordinances, granting charters, railway agreements, stations, train-service, etc. It is similar to the advisory councils of the other three countries in that it may be called upon for opinions and undertake investigations on its own initiative. In Russia, the minister of trade appoints representatives of the agricultural and industrial classes; the railway companies elect their members subject to the approval of the minister; and the Czar appoints representatives of the

departments of the cabinet. The Italian tariff council consists of higher ministerial officials and railway directors, while the supreme council is composed of general inspectors and chiefs of divisions, divided into three groups, each of which can act only on matters relating to the lines of interest represented by that group. Bavaria has an advisory council composed of twenty-five members appointed by the king. A number of the members are nominated by industrial organizations. Of the eighteen members in the council of Saxony, six are elected by chambers of commerce, five by agricultural societies, and seven are appointed by the minister of finance.

More than half a dozen other European states can be added to the list but it is unnecessary. Enough has been said to show that the system of advisory councils proposed for the United States is not a leap into the dark. It is a practical scheme, elaborated in various countries by practical men, and it has stood the test of experience. It involves no destruction of existing arrangements. It requires none but nominal appropriations out of the public treasury. It necessitates no important new machinery. In fact, it is but a bringing together of separated wheels and shafts and placing them in proper connection with one another so as to constitute an efficient machine for public service.

That the public frequently feels suspicious concerning railways no one will question. That this suspicion is sometimes well founded is beyond controversy; and that this same suspicion on the part of the public is often out of all proportion to the cause is equally true. By way of illustration, a personal incident may be alluded to. Several years ago, through the courtesy of a railway president, the writer came into possession, for private use, of the proceedings of a railway committee, which are extremely private in their nature. He had wondered many times what such a committee might be doing; and, because of the secrecy surrounding its proceedings, was inclined to believe that action contrary to public

interests was sometimes agreed upon. After a careful examination of the entire set of documents, he is prepared to state that he firmly believes that the publication of every page of these proceedings could bring nothing but good, or at least no harm, to the railways concerned. Throughout the reading of the many resolutions, orders, petitions and decisions one is impressed again and again with the earnest desire on the part of the railway men concerned to find the correct solution and to pursue a just line of action. But the public is much like the boy with a balloon—it wants to know what there is inside. The public factor in railway enterprise is so large compared with the private factor, that the public is fairly entitled to know, within reasonable limits, what is inside. And this the railways have recognized in many ways, for it is a familiar fact that no stock can sell well and maintain its level on the exchange unless the promoters take the public into their confidence to the extent of issuing full and accurate financial statements. The chairman of one of the great classification committees struck the core of the question when he said that the general public might without detriment to railway interests know everything his committee was doing and that public opinion would uphold their action, but that perhaps not enough was at present given to the public. A system of advisory councils makes it easy for both railways and people to acquaint each other with their doings, and the resulting knowledge will add as much to harmony between them as it will increase the value of the services performed by the railways.

B. H. MEYER.

University of Wisconsin.

THE CONCENTRATION OF RAILWAY CONTROL.

Not only in America but wherever the adoption of the system of private ownership has afforded opportunity for the action of similar economic forces, a single tendency has invariably dominated the history of railway development. The industrial conditions of the years that witnessed the construction of the earlier steam railways warranted only short and cheaply constructed lines and the limited financial resources of that period would have been inadequate for the creation of more extensive systems. As industry developed and growing accumulations of capital permitted the utilization on a larger scale of the indirect and less laborious methods of production involving enhanced dependence upon transportation, the numerous short and separate lines were extended until connections among them became more numerous. Then it became evident that their independence constituted a material limitation of their efficiency. Although this truth is more readily recognized when the statement is applied solely to the special conditions that characterized the earliest period of American railway history, a rigid scrutiny of the industrial relations of any period will afford ample proof of the fact that at no time has the American railway system been sufficiently homogeneous in its organization to render the most efficient service possible.

The existence of many independent corporate units each exercising control over a portion of a system, has at all times produced friction that has impaired efficiency. Under these conditions the pressure of industrial requirements has steadily worked toward the correction of the difficulties growing out of the separate and independent control of railway facilities, and has established the continuous tendency toward the concentration of control that is the dominating factor in railway history. If industrial conditions had remained stationary for any considerable length of time, it is

probable that the process of concentrating railway control would, not long after the beginning of the stationary period, have caught up with the necessities of industry in general and it would now be possible to point to a time at which the degree of railway homogeneity was sufficient to permit the highest possible efficiency of the facilities then in existence. But industrial association in the United States has continually increased in complexity, capital has been accumulated with progressively increasing rapidity, indirect methods of production have been called upon to supply a constantly multiplying proportion of the complex of commodities necessary for subsistence, and under these conditions separate control of different portions of the American railway system has always constituted a barrier to its highest utilization.

The present inquiry has nothing to do with the legal history of railway corporations, except as the degree of facility with which the operations among them essential to the inauguration of common control could, from time to time and in different jurisdictions, be accomplished, may have influenced the rate of progress of the purely economic movement. The consolidation of the previously separate control of different portions of the railway system may or may not be accompanied by the consolidation of the owning corporations. It has often been accomplished without the surrender of any of the outward and formal incidents of legal corporate independence, and there may be any degree of such surrender, from the slightest to the actual merger of one or more corporations into one previously existing or specially created to serve the purposes of the consolidation. After suggesting the various conditions from which centralized control of formerly separate railway properties results, it will be desirable briefly to explain the changes in legal status that usually accompany them.

The unions of connecting lines constitute the earliest type of railway consolidations. Most of the great trunk

lines now in existence were built up by such consolidations, only a very few of them having been originally planned and constructed for the extensive services to the performance of which they have now attained. The difficulties of separate control are not, however, by any means restricted to connecting lines. Before the history of American railways had covered a score of years the existence of rival lines connecting the same regions, and offering to perform the same services, had proved to be a source of industrial friction. The absence of any effectively established minimum limit to charges for particular railway services, and the fact that even closely parallel lines touch each other at relatively few points, render competitive bidding for that portion of railway traffic for which two or more routes are available destructive alike to railway revenues and to industrial stability. Such competition is the cause of unjust discrimination and of arbitrary exactions from local or non-competitive traffic, fatal not only to the development of the communities unfavorably located, but also to the symmetrical growth of industry in general. To avoid evils of this character many consolidations of a second type, illustrated by that of the New York Central and the West Shore, have been effected, in order to unite the control of lines substantially parallel.

Difficulties of the same kind as those which have impelled the consolidation of the so-called parallel lines have also led to unions among railways connecting common markets with different sources of supply of the same or competing commodities. This third type belongs to a later period, and has been effected usually by legal methods that render the application of the term "consolidation" to the results less satisfactory than in connection with the earlier types. Recent operations among certain of the anthracite carrying railways are illustrative of this latest phase of the tendency under discussion.

These earlier consolidations were made by merging one

franchise in that of a corporation owning one of the properties consolidated or by creating a new company. In other instances the control of separate lines has been combined by the purchase of a majority of the voting securities of one corporation by another or by leases for long terms of years or in perpetuity. In such cases the purchasing or leasing corporation has sometimes been one previously controlling one of the consolidated lines and sometimes has been newly created. Another method followed extensively during the last three or four decades, and one that in no way diminishes the formal independence of the corporations exercising immediate control, is the purchase by the same individual or compact group of individuals of dominating interests in the bodies owning the facilities whose ultimate control was to be united. In most instances these compact groups have consisted of persons allied by many common business interests, syndicates specially organized to effect such control, or the clients of prominent banking houses. In comparatively rare instances the groups themselves have been given formal corporate organization. The latter method has been adopted in the case of the Northern Securities Company which is now taking over the control of the great Northern and Northern Pacific railways.

In considering the various conditions and types of physical and corporate union it has seemed convenient to make use of the words "late" and "early," but it should not be inferred that there has been a distinct succession such as those terms might suggest or that the history of railway development can be divided into sharply defined periods characterized by the different types of union described. The order suggested is regarded as logical and helpful and will be found to be roughly historical, but instances of all of the different types of consolidation could be selected from among the incidents of recent years.

Progressive railway development, continuously characterized by a tendency toward the centralization of con-

trol, and with the expression of this tendency pretty closely limited to the forms already discussed naturally led to the creation of extensive systems dominated by men of great power in the industrial and financial world. The character of the evolutionary process through which these systems had been developed prevented territorial exclusiveness, and therefore while the industrial demand for common control continued with unabated force, the time came when the conditions of railway organization met this demand with greatly increased resistance. The terms of further centralization, if it were to be effected on a scale adequate to satisfy the necessities of commerce and industry, had then to be negotiated between corporations possessed of enormous resources and by individuals determined jealously to guard their own industrial supremacy, and strenuous in their efforts to preserve unimpaired their dominating influence in the transportation world. The year 1870 may be used approximately to indicate the time when American railway development apparently reached the stage, at least in the east, at which further complete unions of important rival lines, under the conditions then in existence became substantially impracticable. The rivalries of the New York Central, Pennsylvania, Erie, and Baltimore & Ohio in the decade and a half that began with 1870 certainly contained no less of the evils that demand correction through the institution of common control than any earlier railway contests for traffic, but the personal rivalries of the Vanderbilts, Scotts, Goulds and Garretts, and the domineering dispositions of these great captains of industry made union on terms on which some of them must become subordinate wholly impracticable.

Nor have the difficulties of this kind been wholly personal. The growth of corporations in magnitude and stability has been accompanied by the multiplication of securities of different grades, the relative values of which must satisfactorily be brought to a common denominator in any scheme of cor-

porate consolidation. There has also been a diffusion of the ownership of these securities that has multiplied the difficulty of securing the general acceptance of such a denominator. Diffused ownership very greatly increases the inertia to be overcome, by adding to those who must be convinced of the desirability of the change, a large number of persons who are less thoroughly informed concerning the conditions of the industry than the smaller number formerly in control. Shortly after 1870 unfavorable economic conditions led the public of a large portion of the country into a condition of dissatisfaction with railway methods and resulted in general hostility to further consolidation. Although this sentiment found expression in many laws prohibiting consolidations, it was little if any more effective on that account, for such laws have rarely proved adequate to prevent the consummation of arrangements deemed really necessary, but it was a genuinely deterrent force, because of the proper deference of railway managers to general public sentiment.

Thus about 1870 the leaders of the railway world began an exhaustive search for some means of securing the benefits of centralized control, which could be utilized without encountering the obstacles that then began to impede actual consolidation. The direction in which such means must be sought was plainly indicated by the character of the evils which were then most strongly demanding the remedy of unified control. The demoralization in rates, which grew out of the competition of rival routes offering to perform the same services, resulted in an unstable condition of railway earnings and in many unjust discriminations among persons, places and articles of traffic. If rates could be controlled and systematized, by agreements among separate railways, the principal object of consolidation could be attained without the necessity of yielding independence in other matters. Agreements in regard to the rates to be applied to traffic for which two or more routes were available therefore became

common. It was found, however, that in practice they were frequently violated by lines which saw the possibility of diverting traffic from their rivals and thus increasing the volume of their business. In order to remove the incentive for this the device of distributing such traffic in proportions fixed by agreement was evolved, and under the popular name of "pooling" it developed so rapidly from its commencement in 1870 that when it was made illegal, in 1887, by the fifth section of the Interstate Commerce law, it was the most prominent feature of American railway administration.

The Interstate Commerce law itself may properly be regarded as a step, and that a long one, in the direction of the centralization of railway control. It is by no means an harmonious statute, and it contains elements radically opposed to each other, but its distinctive feature is the requirement that rates shall be relatively reasonable. In other respects this law did nothing more than to declare the policy of the Common Law, that rates should be absolutely reasonable and to provide rules and machinery for enforcing this and the first-named requirement. Its only novel and essential principle is the requirement of relative reasonableness, and this means essentially that all rates shall be subjected to measurement by common definite standards. Obviously this is a result that can only be accomplished through ultimate centralized control or authority to review and correct the acts of those in immediate control. The creation of the Interstate Commerce Commission, and its endowment with authority to order the revision of rates that it should find to be inequitably adjusted, was an important advance toward the general systematization of American railway facilities. That the enforcement of the orders of the Commission, by the legal processes provided in the law, has been less successful than Congress may have intended in 1887, and that its decrees have needed the sanction of public sentiment in order to become effective, does not at all modify the force of this conclusion.

In spite of the fact that harmonious action by the officers of so-called competing railways is a prerequisite absolutely necessary to the successful enforcement of the central principle of the Interstate Commerce law, that statute made illegal the one device that had been found by practical experiment to make such action possible. Agreements for the division of freight or freight revenue were made illegal, and thus the best substitute for actual consolidation that the ingenuity of railway administrators had been able to devise was effectually destroyed. Efforts were made by railroad officials to provide incentives to the observance of rate agreements and railway associations, although less effective than when they included pooling arrangements, were a very prominent and helpful feature of railway administration for many years after the enactment of the Interstate Commerce law. Later, however, probably to the surprise of most of the supporters of the Sherman anti-trust law the Supreme Court of the United States interpreted that statute so as to make it applicable to railways, and held that it prohibited all agreements for the maintenance of rates, even including instances in which these were both absolutely and relatively reasonable and just. One consequence of this decision was finally to compel recurrence to the more direct devices for securing centralized control that had characterized the earlier decades of railway history. Actual consolidation did not cease between 1870 and 1897, but the progress of the tendency in that direction was slower than it had been on account of the obstacles referred to and the relief afforded by the substitute just described. When resort to these substitutes was made impossible the tendency naturally began to press harder for expression in the earlier form. At about the same time very extraordinary industrial conditions at home and abroad produced unprecedented domestic prosperity, and placed in the hands of American investors an immense fund of ready capital. This greatly facilitated the financial operations connected with railway consolidations,

and was also to some extent an incentive to undertake them as a means of marketing securities.

The term "community of interest" was originally applied to a device for promoting harmonious action that must now be looked upon much as a makeshift of but temporary utility. Properly this term is used only to designate those instances in which one railway corporation becomes the owner of a block, less than a majority, of the voting securities of another and thereby obtains a voice, but not the controlling voice, in the management of the latter, or in which an individual or compact group of individuals having control of one railway becomes so interested in another. The phrase was promptly taken up by the public and the newspapers and has now come to be applied to nearly every device of common ownership short of actual consolidation. More recently still it has passed into the daily jargon of the bulls and bears of Wall street, where it has lost whatever significance it had previously retained.

The actual consolidation of railway properties has never gone on more rapidly than during the year 1901. The absorption by their former rivals of such properties as the Baltimore & Ohio, Southern Pacific and Chicago, Burlington & Quincy, would be notable if occurring singly and on widely separated dates, but all these and other great lines have passed, within a few months, into the control of formerly competing lines.

So much must be said, in discussing the causes of consolidation, of the superior services rendered after it has taken place and of the relation of separate control to unjust discrimination that the argument might so far be misconceived as to leave the impression that the writer has assumed that other than purely business motives have actuated those who have planned and executed the various steps in the process of railway unification. No such assumption is intended. Those in charge of railway facilities have perceived opportunities for personal gain to be achieved through uniting sepa-

rate properties. The incentive has been such as would appeal to the theoretical "economic man," and in few other departments of industrial activity has any process been as little impeded by extra-economic considerations. It would be grossly incorrect, however, to regard this as equivalent to the statement that consolidation has permitted higher rates or a higher proportionate return to the capital invested. Indeed it is substantially certain that the average return upon railway capital has been reduced by railway concentration below the point at which it would have remained had the tendency in that direction been arbitrarily overcome or even very materially retarded in its operation. So long as a country demands continuous additions to its railway facilities, or the progressive improvement of those in existence, and is therefore calling for new investments of capital in railway enterprises, it is quite certain that the average return to such capital must bear an acceptable relation to the average return from other investments, and that the rate that will be accepted must be dependent in a very large degree upon the amount of risk involved.

The writer believes that in the United States there has been a deceptive attractiveness in railway investments which has arisen from an almost invariably baseless hope of extraordinary returns, and that this has resulted in excessive investments in the transportation field with a consequent reduction of the average yield to capital considerably below the average of industries of actually greater stability. Land grants and local subsidies had much to do with the establishment of this condition, if it really exists, and it must also be based upon the enthusiasm of the early railway *entrepreneurs*, especially of those who after securing investments were unscrupulous enough to derive personal profits in the manipulation of the securities of the lines they had promoted. The existence of this condition is by no means fundamental to the present discussion, however interesting a side-light it may throw upon it, and

the truth or falsity of the writer's assumption in this particular would in no way modify the principle that the return to railway capital must be materially affected by the risk assumed. Capital prefers the substantial certainty of a small and definite return to the possibility of a high gain with the alternative of actual loss. In the degree that uncertainty is eliminated an industry becomes the field of investment as distinguished from adventuring. The former demands small returns, the latter large.

No extensive railway enjoys the privilege of monopoly gains. The appearance of monopoly in this industry is deceptive and untrustworthy. With the exception of travel for pleasure, which furnishes but an insignificant proportion of the total railway traffic, the services rendered by railways are to be defined as the production of a complementary commodity or one which is of no utility except in connection with some other commodity. In other words, railways take utilities of form and add to them utilities of place—the sums being utilities available to consumers. But as most utilities of form can be produced in many places while in many instances one kind may be substituted for another, the circumstances under which railways can exact arbitrary charges for their services are exceedingly rare. Under the more usual circumstances the impulse to produce the largest marketable volume results in progressive reductions in the rates of charge which, having no limitation arising from a known or discoverable cost of production of specific services are only checked by reaching a point beyond which they will not secure additional traffic, or by the ultimate realization that total revenue is below the amount necessary to pay expenses of operation and the minimum return that will be accepted by investors. The regular alternation of periods of high industrial prosperity and great activity with those of depression and closely restricted production is also a factor in the reduction of the return to the investors in railway enterprises. Rates being once adjusted

to a period of great activity, naturally accompanied by a great volume of traffic, the subsequent period of comparative stagnation is certain very materially to reduce the aggregate of the revenue which they produce. But at such times commercial conditions and public sentiment forbid any increase. With recurrent prosperity, however, further reductions are usually made and thus the process goes on indefinitely repeating itself. The absence of a cost of production limit to specific rates and the existence of the downward tendency resulting from the forces just described, cause the possible profits on the small portion of traffic on which arbitrary rates could be collected to be absorbed by reductions on the larger portion.

The consequences accruing to the owners of railway property from the concentration of railway control, are therefore greater stability in their investments and a lower rate of return upon their capital. That these results would ensue has not, of course, always been perceived in advance by those who have effected consolidations, nor is the substantial certainty that they will occur yet unanimously recognized by practical railway men. The latter have often hoped to realize high profits through the economies possible under consolidated management, and to share largely in the pecuniary results of the higher efficiency so secured. In spite, however, of these alluring anticipations it would be impossible to point to an illustration, on a significant scale, of a union of separate lines in which the consequences have not been as described. The very important gain to the public in the elimination, under unified control, of unjust discrimination, is really a part of the gain in efficiency, and is mainly to be measured by the growth of the communities after the incubus of injustice has been removed. Although this development might produce a monopoly gain were the commodities supplied by the railways capable of monopolization; this is so rarely the case that it scarcely merits separate attention. There is no indication that an

exceptional instance can be discovered in the United States. It must be recognized that the general public has followed the recent progress of railway unification, which, under the spur of legislative restraints upon other methods of securing the advantages of centralized control, has been unprecedentedly rapid, with much less discontent than was observed in connection with former movements of much smaller magnitude. Yet some inquiry is natural and desirable, and it seems proper to examine in some detail the probable consequences of the present movement toward centralization.

The plainest teaching of railway history is that consolidation means enhanced efficiency in the broadest sense. This is not only that persons and property will be moved more expeditiously and with greater comfort and safety, but that the charges for railway services will be gradually reduced, and many of the unjust disadvantages to which persons, places and kinds of traffic are subjected by discriminations in favor of traffic for which alternative routes are available will finally be removed. These desirable results will be accomplished to precisely the extent in which the present movement has brought about a degree of harmony and systematization in the railway industry that is adequate to the demands of the current general industrial organization. Discriminations that unjustly favor terminal points will be eliminated in so far as the particular route taken by specific shipments is rendered indifferent to any and all of those interested in the various routes available. If the concentration of railway control has not gone far enough to produce such indifference with regard to any traffic, it will continue to be unduly favored, and other traffic, as well as the persons and places concerned in it, will continue at an unjust disadvantage. Rates will be reduced by the operation of the forces which, as heretofore indicated, keep the return to railway capital on a competitive basis, and the fact that increased stability and decreased risk have been secured

by the diffusion of the possibilities of harm through local industrial disturbances, such as crop failures and strikes, and the protection against occasional instances of destructive inter-line warfare for traffic and the accompanying demoralization of rates and revenues.

The physical improvement of financially weaker lines, after absorption by stronger corporations, has been a marked characteristic of some recent operations, and there have also been numerous instances in which the greater liberality with which the larger companies are able to treat their employees in such matters as wages, hours of labor, and pension and insurance privileges, have after consolidation been extended so as to benefit the employees taken over with the properties on which they formerly served. On the other hand, the consolidation of lines tends to reduce the volume of employment per unit of traffic, in certain lines of railway work and it is as yet impossible to say how far this is offset by the tendency of the lower rates and generally superior efficiency to increase traffic. So far as the number and cost of employees per unit of traffic are reduced, it is evident that the general traveling and shipping public can interpose no objection. Consolidation, like any other labor-saving device, may make necessary some industrial readjustments which, while generally and in the net result beneficial, may operate to the temporary injury of a few. However distressing these readjustments, their sum cannot be so great as the total loss in comparative comfort that would inevitably result from refusal to take advantage of the appliances making them necessary.

A railway of short length, requiring relatively small capital, and subject to all of the vicissitudes of local industries, will interest local capitalists of adventurous disposition, and may attract the capital of the few men who make a business of calculating the prospects of hazardous enterprises of that character. Both classes of investors will demand chances of high returns, but will subject themselves to the possibility

of extensive and even total loss. In an extended series of such undertakings the average return, combining the successful with the unsuccessful, will be relatively high, although this presumption is subject to the qualification that the risks incurred may be generally and grossly underestimated. If, however, several such roads are combined the risks of local industrial difficulties will be distributed, and greater stability for the investments will be secured. Should combination extend so as to include two or more routes connecting the same regions, or offering to supply the same market with competitive products, another kind of risk, that of destructive rate wars, would be eliminated. As every step in the elimination of risk opens the door to the investment of capital one degree more timid than that last admitted, the result is not only to reduce the return demanded by capital, but also to diffuse ownership. Progress in this direction will not, however, bring in many small investors until it has gone far enough to establish a very high degree of stability for the investments. When this has been accomplished small investors will enter the field in large numbers and thus, as the concentration of railway control becomes genuinely effective, it tends strongly toward the diffusion of railway ownership. There is no such incentive to saving as the existence of a well-known, stable and fairly remunerative form of investment. Small local railways could not supply this demand, even if there were not always the extra hazards of local enterprises and rate-cutting, for the number of different securities would too greatly increase the difficulty of acquiring information concerning their respective values. The securities of great railway systems do supply this great economic need, and especially as more reasonable public sentiment withdraws the restraints of unwise legislation will their stability increase and win general recognition. Thus while the process of consolidation may allow those individuals of high economic perception who take the lead in it, rapidly to

accumulate large personal fortunes, which are the payment for the great services they perform in enhancing railway efficiency, it must tend eventually to the diffusion not only of railway ownership, but of wealth in general and to the consequent reduction of the differences between average wealth and the greatest fortunes, on the one hand, and the smallest possessions upon the other. How far this tendency may be offset or exceeded by those in the opposite direction extraneous to the railway industry is another matter.

The personal and financial difficulties now in the way will prevent the present movement proceeding far enough to eliminate all of the evils of independent railway control. This does not mean that economic advantage would result from the consolidation of all American railways under a single management, but merely that it will not now be possible to bring systematization abreast of purely industrial requirements. In fact, it is doubtful, when extra-economic considerations are invoked, whether it would now be desirable to force the organization of the railway system to the point of highest economic convenience. Other social institutions, principally those of a political character, do not appear to be developed sufficiently to bear the strain of adjustment. Indeed, one of the severest criticisms of such legislation as the anti-pooling clause of the Interstate Commerce law and the anti-trust law as applied to railways is that it unduly stimulates and forces the movement toward railway consolidation.

Therefore, while the progress of consolidation remains too slow to attain the point fixed as desirable by the demands of general industry, it will continue to be advisable to utilize the most satisfactory substitutes that are available or can be made so. The best of these is the railway association having power to prescribe rates and methods and to secure the enforcement of both by distributing in fixed proportions the traffic which might be the object of independent offers of rates or privileges. Such distribution almost wholly removes the incentive for seeking business by the methods that pro-

duce unjust discriminations, and interfere with symmetrical industrial development. This substitute is not now available on account of the fifth section of the Interstate Commerce law and the interpretation of the Sherman anti-trust law adopted by the United States Supreme Court. Efforts to render it available and to give legal efficacy to agreements of this character, when filed with the Interstate Commerce Commission and subject to its constant supervision, have so far been unsuccessful on account of the extreme demands of those who wish to subject the business of interstate railways to a very rigid and absolute form of federal control. Those who take this view have frequently attempted to find support for their contentions in the progress toward the concentration of railway control, but so far as their efforts have been subjected to logical scrutiny and analysis they have utterly failed. Railway rates cannot be generally excessive, all railway history proves that they cannot under any circumstances be permanently advanced,¹ and the progress of consolidation always operates to eliminate the defects in the relative adjustment of charges that constitute the real basis of nearly all friction between the railways and their patrons. If, however, it is necessary, in order to legalize methods so essential to railway efficiency as those of association for rate-making and maintenance, that federal control should be extended to details most effectually regulated by commercial forces superior to statutory law, the railways have less to lose than any one else by the introduction of such a radical departure from the best precedents of American industrial legislation. If the changes do not go so far in the direction of legislative interference in industry as to threaten the entire fabric of domestic production and commerce, thus making it incumbent upon those first directly affected to bear the brunt of the struggle necessary to repel an attack of general scope,

¹The existence of the same distinction between real and nominal rates as between real and nominal wages should be noted, although it does not materially affect the accuracy of this statement.

the railways can well afford to withhold their own opposition.

Few students of industrial history will accede to the proposition that it is safer to trust to the action of a board endowed with authority to compel the rate adjustments which it approves than to the natural processes of adjustment to commercial demands, reinforced in exceptional instances by the investigations and suggestions of competent public authorities, with ample provision for securing complete publicity as a means of invoking sound public sentiment in aid of the just recommendations of these authorities. This is especially the case when it is recognized that to clothe a board with power to enforce its orders, or to secure their enforcement by judicial processes is to deprive its most correct and reasonable conclusions of the support of general public sentiment. When the general public depends confidently upon laws of an arbitrary character it is not sufficiently watchful to permit that general publicity which must be the basis of effective public sentiment.

There are personal and financial obstacles that always impede the movement toward railway consolidation. These, at the present time, seem likely to prevent the immediate continuance of the movement in its recent intensity. The inquiry, how far concentration is eventually to go, is, however, a natural and pertinent one. If all limitations of time are removed, the answer is that industrial necessity will sometime weld all American railways into a single system. At present, however, the tendency is to divide the country into districts, and it is probable that the lines within each of these already clearly defined districts will be united before consolidation of lines belonging to two or more of them are effected. The districts are four in number. One is east of the Mississippi and north of the Potomac and Ohio; a second south of the two rivers last named and east of the Mississippi; a third includes the lines connecting the Pacific Coast with the Mississippi River, and somewhat overlaps a fourth, which embraces the so-called

southwestern lines. The union of the last two districts is not improbable. The newspaper fantasy of a line from the Atlantic to the Pacific under unified management is not likely soon to materialize. Individual operators may invest largely in roads which together might constitute such a line, but under present conditions they will carefully refrain from steps which might imply unified management, especially in traffic matters. To do otherwise would be to invoke inter-line jealousies of destructive force, and to awaken in fearful force the very form of rivalry that current consolidations are intended to avoid.

A broad study of American railway history, and especially of the relations between the railways and those who purchase and are dependent upon their services, with suitable regard for the modifications effected in those relations by the drawing together of the originally separate parts of the railway system, like the study of most phases of industrial development, leads to the conclusion that the tremendous natural forces of industry are always beneficent. It also shows that they are more powerful than political or legal institutions, that they are not subject to legislative control, and that they work best when least opposed. The most good voluntary social action can accomplish is to hasten the natural adjustment between the different kinds of social institutions and to take advantage of natural tendencies in industry by accepting them as inevitable and shaping social policies in accordance with them. To attempt to shackle them is to erect obstacles in the path of industrial progress which, while they cannot be made insurmountable, are very likely to retard it and to be the source of innumerable and unforeseen difficulties.

H. T. NEWCOMB.

The Railway World, Philadelphia.

COMMUNICATION.

THE NATIONAL COMPANY OF LIGHT RAILWAYS IN BELGIUM.

Most of the Belgian railroads have always been in the hands of the state, and as late as fifteen years ago all of them were broadgauge lines. The expenses of building and working a broadgauge railroad usually prevented the extension of the system through the less thickly populated parts of the country, with the result that the people who were most in need of cheap transportation were utterly deprived of facilities, except in a few instances where personal or political influences were brought to bear on the government, and then, the community at large was burdened with the unnecessary load of a losing venture. Private enterprise was equally slow in starting light country railroads, although it freely undertook the construction of city tramways. The reason for this was that the local country lines, except in the neighborhood of large towns, could never be expected to yield large dividends.

In 1885, a bill was brought forward for promoting a system of local light railways throughout the country districts and for connecting them with market places and with stations on the large railroads.

The bill became a statute and provided for the incorporation of a national monopoly: the *Société Nationale des Chemins de fer Vicinaux*. The statute gives a monopoly to a limited liability company whose existence is indefinite, and which can be dissolved only by act of parliament. Although not officially called a monopoly, the National Company is one to all intents and purposes, for, with the single exception of municipal tramways, it has an option for a year upon the construction of all the light railways authorized by the government. Probably, when the National Company does not avail itself of the franchise, the line will not be worth building, and nobody will undertake it. Moreover, when the government grants a franchise for a new line, the time is stated within which it must be completed, without forfeiting the privileges of the concession.

The capitalization of the National Company is unlimited, and is issued in \$200 shares, the issue depending upon the amount required for building and equipping the lines of light railways which the company may open. Whenever the building of a new branch is undertaken, the company issues the necessary number of \$200 shares, and these new shares form a series bearing a special number, the interest on which must be paid out of the earnings of the new line only.

The statute provides that in each case a minimum of two-thirds of these shares must be subscribed for conjointly by the state, the provinces (counties), and the municipalities connected with the particular branch. The subscription of the state shall not exceed one-half of the capital required for each line, but as a rule it has reached that figure during recent years, because the government desires to promote the extension of the system on a large scale. The provinces and municipalities interested in the branch constructed may subscribe as much of the capital as they please, provided it does not burden their financial powers beyond what may readily be met by the local taxes. The remainder of the capital, not exceeding one-third of the total amount, if there be any left unsubscribed for, may be taken by private investors.

The shares owned by the private investors are similar to those of any other business corporation and transferable at will; but the shares of the provinces and the municipalities are transferable only by special authority of the government. One special feature of the National Company is that it makes the state and the public bodies compulsory joint owners of the capital of the corporation, but limits their liability to the amount of their respective subscriptions.

The statute provides further that the shares allotted to private investors, if any, must be paid for either immediately or upon call of the directors of the company. But the state and the other administrative authorities may pay up their subscriptions as they may choose, either fully at once, or, as is generally the case, in ninety yearly instalments, calculated at $3\frac{1}{2}$ per cent per annum. A special financial scheme highly beneficial to the public bodies has been resorted to in order to carry out this combination. Whenever the company receives such instalment subscriptions, it issues bonds for the corresponding amount in capital and throws them on the stock market. The bonds are 3 per cent debentures only, but they are readily taken up by investors, because the interest and the sinking fund of the bonds are guaranteed to the extent of 600,000 francs a year, by the government, under whose authority they are issued by the company. The 3 per cent bonds of the National Company rank almost as high as government securities. The interest and sinking fund of these bonds must be provided for out of the yearly instalments of the subscribing public bodies, as long as the earnings of the National Company are not able to cover them.

For the purposes of financial management and working of the light railways, each branch line or group of branch lines is considered as under a separate corporation. As long as the operating expenses exceed the earnings the National Company makes up the differ-

ence; but as soon as the line begins to pay, a dividend is allotted to the various shareholders in the following way: To the private shareholders, the directors may issue a dividend not exceeding 4 per cent per annum on the paid up capital, according to the conditions under which the shares have been subscribed for. To the public bodies the directors must allow a dividend as nearly as possible equal to the yearly instalment due from the subscribers. If a surplus still remains, it shall, after due provision has been made for the allowances to the directors and the general manager personally, be divided by giving one-fourth to the particular reserve fund of the branch corporation, three-eighths as a further dividend to the general shareholders and three-eighths to the National Company.

The National Company is a construction company only; it builds the lines of light railway and fully equips them with the necessary rolling stock, but it does not operate the roads. Each line or group of lines is leased, fully equipped, to a contractor who may be a private individual, a company or a co-operative association of interested municipalities. The terms of the lease (*cahier des charges*) provide carefully for the improvement of the train service, the rates of transportation, the repairs of the rolling stock, the proper supplying of the lines with laborers and clerical staff, and the apportionment of the net earnings between the operating company or lessee and the National Company, *i. e.*, its own shareholders. The improvements of the permanent way and the buildings, together with the supply of additional rolling stock, are paid for by the National Company. The accounts of the operating company are open to the supervision of the National Company, and security is given to it by the lessee both in cash deposits and in a preferred share of the yearly earnings of the lines. These operating contracts or leases are made for thirty years in each case, in accordance with rules laid down by the statute and by the government when they grant to the National Company the franchise for building the new line.

The plan of leasing out the operation of the lines to local investors works well. It frees the National Company from running a large number of small disconnected railways scattered all over the country, and insures a good local service, under the general supervision of the National Company, by contractors, mostly local business men, manufacturers or landowners, interested both in the financial success of the concern and the improvement of the district. The necessary capital not being large, is obtained easily by the contractors. The only capital requirements are for the running expenses of the small railroads, and the rate of interest is not limited to a fixed maximum, as in the case of shares subscribed for the building of the light railways.

The natural result of this maximum limit of 4 per cent a year on the building shares has been that only a small number of private investors have subscribed towards the capital of the National Company; their aggregate subscriptions do not quite cover $2\frac{1}{2}$ per cent of the capital amount.

The Belgian state, provinces and municipalities, through the medium of the National Company, are practically the sole owners of the whole system of light railways throughout the country. Yet, they have not strained their finances in acquiring this large property, because they can pay up their shares in ninety yearly instalments of $3\frac{1}{2}$ per cent per annum. At the same time the railroads are built with the money provided by the 3 per cent bonds also amortizable in ninety years. As long as the particular line in which the public bodies have invested is not worked at a profit, they go on paying in capital without compensation, but as soon as the line begins to pay, their share in its earnings is deducted from the payable annuities, and it may happen at any time before the expiration of the ninety years, that the dividend will fully cover the annuities, and that the public subscribers will be able to pay up the remainder of their subscriptions out of the earnings of the money previously paid in. Their financial position will be still further improved after ninety years, when the public shareholders have no more annuities to pay and will receive in cash their share of the dividend earned by their own lines. They may even then purchase on the stock market, at any price not exceeding the par value, the shares of private investors, willing to part with their holdings at that figure, in order to acquire exclusive control over the capital of any local branch in which they are interested.

Because of the public character of the National Company, special rules have been laid down in the statute for the constitution of its governing body.

The general manager of the company is directly appointed by the government and he holds his office during good behavior, as is the case with other civil servants. He is entitled to sit and vote in the meetings of the Board of Directors. The directors, six in number, are appointed for six years and may be re-elected, one-half by the shareholders, and the other half, including the president of the board, by the government. There is also a Board of Overseers, nine in number, appointed yearly, and re-eligible to election by the shareholders at their annual meeting, one overseer being chosen from each of the nine Belgian provinces. The members of this board are, as a rule, members of the administrative body in each province, and may be looked upon as delegates of the provinces to look after their interests in the management of the company.

The problem of control over this big monopoly has thus been solved by giving the government a strong power over the managing authorities of the National Company. At the same time a suitable representation of the shareholders, both public and private, has been provided for. The control of the government and other administrative authorities over the transportation service on each line is secured by the right of supervision of the National Company over the working of each local branch and by the enforcement of the rules laid down in the contract for the lease of every single branch to the local operating company.

By the end of the year 1900 the National Company of Light Railways had built or was engaged in the construction of 104 lines of narrow-gauge railroads covering a total distance of 2,384 kilometers,¹ 1,840 of which were already in operation. The company contemplates the building of 107 other lines representing 2,023 kilometers. Moreover, seven lines with a total length of 153 kilometers have been asked for by local communities, but the applications so far have not been entertained by the company. Should the company decide to construct these roads, its engagements would involve a total of 218 lines with a length of 4,560 kilometers. The capital required for the first 104 lines amounts to 124,109,000 francs, and has been subscribed for as follows:

State	41,810,000 francs, or 33.7 per cent.		
Provinces	34,917,000	"	28.1 "
Municipalities	44,336,000	"	35.7 "
Private investors . . .	3,046,000	"	2.5 "

The capital actually spent on the lines already built or being built and equipped with rolling stock amounts to 93,388,896 francs, *i. e.*, an average cost of 45,612 francs per kilometer.

Out of 79 lines that have been operated for at least one year, 40 yield a profit slightly higher than the $3\frac{1}{2}$ per cent rate of the yearly annuities subscribed for by the public bodies; 10 yield a profit of 3 per cent; 11 bring a little more than $2\frac{1}{2}$ per cent, and 6 a trifle over 2 per cent a year. The average rate of profit for the year 1900 is 3.3346 per cent of the capital subscribed. For the last ten years the average rate of profit has slowly but steadily increased: In 1890, it was 2.65 per cent; 1891, 2.75 per cent; 1892, 2.76 per cent; 1893, 2.80 per cent; 1894, 2.90 per cent; 1895, 2.98 per cent; 1896, 3.08 per cent; 1897, 3.15 per cent; 1898, 3.23 per cent; 1899, 3.30 per cent; 1900, 3.33 per cent.

By comparing the mileage of the National Company's narrow-gauge

¹ One English mile is about 1.6 kilometer, or 1,609 meters.

railroads with the mileage of trunk lines or broad-gauge railways in Belgium, it will be seen that the former is more than 50 per cent of the latter. Taking the population of Belgium at 6,744,532 inhabitants, the figure at which it stood last year, and the area of the country at 2,945,591 hectares¹ the proportion of the light railroads' mileage (2,384 kilometers) stands as follows :

For every 10,000 inhabitants, 3.53 kilometers of light railroads.

For " 10,000 hectares, 8.09 " " "

The gauge is generally one meter except for a branch of about twenty-two kilometers, where a gauge of 1.435 meters, or about five feet, has been adopted for the sake of connecting with Dutch lines. The lines are generally worked by steam, except when they run into large cities. Electricity is used there, the electric lines now having a length of about seventy-five kilometers.

ALFRED NERINCKX.

University of Louvain, Belgium.

¹ One hectare is nearly equal to $2\frac{1}{4}$ acres.

ACADEMY NOTICES AND PROCEEDINGS.

1. **ANNUAL BUSINESS MEETING.**—In accordance with the provisions of the by-laws, the annual business meeting of the Academy will be held in the hall of the College of Physicians, N. E. corner Thirteenth and Locust streets, Philadelphia, on Monday, January 20, 1902, at 4 p. m. The Annual Report of the Board of Directors will be presented, three directors elected, and such other business transacted as may properly be brought before the meeting.
2. **CIVIL GOVERNMENT IN THE PHILIPPINES.**—Proceedings of the Seventy-fifth Scientific session of the Academy, held in the New Century Drawing Room, Thursday evening, October 31, 1901. The topic of the meeting was: "The Outlook for Civil Government in the Philippines." The president announced that General Arthur Mac Arthur, who had accepted the invitation of the Academy to deliver the opening address on this subject, was unable to be present, owing to the fact that he had been called west on important public business.

Dr. George F. Becker, of the United States Geological Survey, who had been detailed for service, lasting over a year, in the Philippines with the army under command of General Mac Arthur, was introduced as the first speaker. Dr. Becker said that there is no political future for the peoples of the Philippines, at least for this or the next generation. The natives are divided into many different tribes, speak many different languages, are not able to understand each other, and in most cases the several tribes are at enmity or war with each other. They must be considered as children with respect to political liberty as understood by Americans. They must be taught to walk and not left to themselves. To train them in government is the first imperative duty that has fallen to the United States. They have many virtues, though not without serious vices, and may in time—though necessarily a long way off—attain to self-government. The work of the United States is to do what no other nation has ever done, transplant our civilization to the tropics. Dr. Becker pointed out in this connection the failure of the Dutch in the East Indies and of the British in the Straits Settlement, showing that instead of those nations teaching the natives to come up to the new standard, they had permitted them to fall even lower by introducing Chinese to do the work by which alone civilization is attained.

In the Philippines the first requisite is to keep out the politician and to cultivate the spirit of work and foster everything that will make

for economic prosperity as the basis of good government. They must be taught that one day's work per week is not enough to assure economic prosperity even if it meets their most urgent necessities. They must be encouraged by being guaranteed the fruits of patient, persistent toil, and be taught the elementary lessons of social and economic virtues in the accumulation and use of wealth.

Following Dr. Becker, Mr. José Abreu, a Filipino lawyer and a member of the Manila bar, who is sojourning in this country for the purpose of studying American law and institutions, and is employed as an expert in the War Department, spoke on the political aspects of the topic of the meeting. Mr. Abreu said in part:

"The difficulties can only be measured by the complex and numerous questions which enter as factors in the problem under discussion. Its importance can be recognized when we realize that another test is to be applied to democracy, and that the welfare of ten million people depends on the solution of the problem. . . .

"These factors are: (1) the possibility of civil government in the Philippines; (2) the manner in which this government should be administered.

"Before leaving the islands, and while General Otis was military governor, I often heard complaints from my countrymen against military rule, and noticed a strong desire for the immediate establishment of civil government, some indulging in the utopian dream that civil government should precede the establishment of peace, rather than that the establishment of peace should precede civil government. On the other hand, at the present time, now that a civil regimen prevails in those islands, with civilians having more authority than military officers, there are some who maintain that such a condition is absurd. . . . Both opinions are extreme. . . . Civil government is now practical within certain limitations, and later, when resistance to the unquestioned authority of the United States has completely disappeared, full civil government can be granted for the reason that it is a possibility wherever there coexist certain elements which can direct and others which can be readily controlled. . . . The Philippine people are easily governed. Their oriental nature inclines them to be submissive and obedient to law; they are industrious and lovers of peace and order.

"Three centuries of contact with European Christian peoples have instilled into their character certain occidental ideas and virtues which make them quite capable of understanding your principles of government. . . . It is certain that the Philippine people who promise most for the future of the Orient, and you who are now imparting to them your education, institutions and laws, will be delightfully surprised at

what will be accomplished during the next few years. It will almost refute the old saying that nations are not born in a day."

Mr. Abreu pointed out that the few sections where rebellion still was manifest were no index of the feeling of the whole people, and only showed how costly it is to overcome race prejudice and errors born of misinformation and ignorance. He dwelt upon the mistakes of Spain in making no provision for political training of the people, and cited the experience of the Taft Commission to show that there were educated Filipinos capable of directing civil government in important departments. He further argued for some form of representation of the people in the central government of the islands. "I believe that if the machinery of legislation were enlarged, granting a limited suffrage to the inhabitants of the provinces, so that they could send their representatives to the Commission (it becoming in this way a sort of a representative congress), all resentment, hostility and suspicion would disappear, this being subject of course to definite action by Congress. . . . This would accomplish three objects: (1) It would give a more popular character to the central government; (2) it would satisfy the desire of the people to have some part in legislation, which all consider as the predominant feature of self-government; (3) it would teach the people to legislate with the guidance and advice of the civil commission.

"This plan would complete the social, economic and political education of our people."

PERSONAL NOTES.

University of Tennessee, Knoxville, Tenn.—Mr. James Dickason Hoskins has been appointed Assistant Professor of History and Economics in the University of Tennessee. Mr. Hoskins was born January 31, 1870, at New Market, Jefferson County, Tennessee. He received his early education in the public and private schools, including Manry Academy of Dandridge, Tennessee. He entered the University of Tennessee in the fall of 1887, graduating in 1891 with the degree of B. S., and taking degrees M. A. (1893) and LL. B. (1897) from the same university, where he pursued post-graduate studies in the years 1891-1893. Mr. Hoskins also did graduate work at the University of Chicago in the summer semester of 1900. He was appointed Instructor in Mathematics at the University of Tennessee for the year 1891-1892 and was also Instructor, then Principal at the Knoxville Classical School from 1894-1898. He was Professor of History at the Baker-Himmel School of Knoxville 1898-1899, and also Associate Principal of that School 1899-1900.

Vanderbilt University, Nashville, Tenn.—Dr. Frederick W. Moore has been advanced to the position of Full Professor of History and Economics in Vanderbilt University. A personal note concerning Dr. Moore appeared in the ANNALS for September, 1892,¹ since which time he has been elected a member of the Historical Manuscripts Commission of the American Historical Association for the years 1899-1900. Dr. Moore has also added, in this period, to his publications, as follows:

"*The Condition of the Southern Farmer.*" Yale Review, May, 1894.

"*Representation in the National Congress from the Seceding States, 1861-1865.*" American Historical Review, January and April, 1897.

"*The Outlines of Sociology.*" (Gumplowicz) Translation. American Academy of Political and Social Science, 1899.

"*Columbus as a Typical Hero.*" Methodist Review, Nashville, September, 1900.

"*Recent Sociology.*" University Association, Chicago, 1900.

"*The Functions of a State History.*" Sewanee Review, 1901.

"*Weak Points in High School Work, as Shown by Candidates for the Freshman Class,*" and two papers on History and Geography in

¹ See ANNALS, vol. iii, p. 241, September, 1892.

the Preparatory Schools, being papers and reports presented to the Association of Colleges and Preparatory Schools of the Southern States and printed in the Proceedings of the Association in 1896, 1897 and 1899.

University of Wisconsin, Madison, Wis.—Mr. Thomas Sewell Adams has been appointed Assistant Professor of Economics and Statistics at the University of Wisconsin, his academic work having begun in September, 1901. Mr. Adams was born December 29, 1874, at Baltimore, Md., and received his early education in the public schools of Baltimore and Washington, D. C. He entered Johns Hopkins University in 1892, graduating in 1896 with the degree of A. B., and pursued his graduate studies at the same institution, taking the degree of Ph. D. in 1899. Dr. Adams was appointed in the Census office November 15, 1899, and served until October 15, 1900, as a member of the Division of Methods and Results. From November 1, 1900, to July 31, 1901, Dr. Adams served in the insular government of Porto Rico as assistant to the treasurer of that island.

Among Dr. Adams' more important books are the following:

"*Taxation in Maryland.*" In eighteenth Series of Johns Hopkins University Studies.

"*The American Workman.*" Translation of "*Levasseur's L'Ouvrier Américain.*" Published in special volume of the Johns Hopkins University Studies.

"*Financial Problems in Porto Rico.*" Annals of the American Academy, May, 1901.

A Series of papers upon Porto Rico. Published in the Nation (New York) in 1901.

Mr. Henry Charles Taylor has been appointed Instructor in Commerce at the University of Wisconsin, beginning his academic work September, 1901. Mr. Taylor was born April 16, 1873, at Stockport, Van Buren County, Iowa. He received his early education in the public schools and his preparation for college in the academic department of Drake University. He entered the Iowa Agricultural College, graduating in 1896 with the degree of B. Agr. In 1898 Mr. Taylor took the degree of M. S. from the Iowa Agricultural College. He then entered the University of Wisconsin, pursuing graduate studies from 1896 to 1899 inclusive, and continuing the same at the London School of Economics in the winter of 1899-1900, and at the Universities of Halle and Berlin in the academic year 1900-1901.

BOOK DEPARTMENT.

NOTES.

PROFESSOR ADAMS, OF YALE, and Professor Stephens, of Cornell, have edited a most useful volume of selections for students of English Constitutional History.¹ The collection begins with the ordinance of William the Conqueror for the separation of spiritual and temporal courts, and ends with the third redistribution of parliamentary seats in 1885. For the eight centuries thus included there are 276 documents. A statistical statement will show most readily where the strength of the book lies: For the first two centuries, to 1285, there are 44 selections; for the next two centuries, 91; 1486-1685, 97; for the last two centuries, 44. The older documents, originally in Latin or old French, are published in translation; many of the modern documents are abridged, in order to save space. For each document the bibliographical reference is given in full; but there is no introduction, as this volume is intended for use with a text-book. The editors acknowledge their indebtedness to Stubbs, Prothero, Gardiner, Gee and Hardy, and the series of "Translations and Reprints," but their own book is much more than a mere selection from the collections previously published. Even for the period covered by Stubbs' *Select Charters*, it furnishes some important documents not included in that work. In addition the book contains material in English for the whole period of the development of the constitution, and for this reason it is more useful for undergraduate work than any other collection.²

SIR JOHN BOURINOT'S "Constitutional History of Canada"³ has appeared in a new and enlarged edition. The new edition is similar to the first in its general legal tone. Numbers of new decisions have been added and the work now includes a fairly complete discussion of the judicial decisions governing the most important practical questions before the Canadian government. In the last chapter several interesting observations on the practical operation of parliamentary government in Canada are given. Prominent among the subjects discussed are: Constitutional Relations Between Great Britain and Canada, The Written and Unwritten Law of the Constitution, The Federal Executive, Ministerial Responsibility, etc.

¹ *Select Documents of English Constitutional History*. Edited by GEORGE BURTON ADAMS and H. MORSE STEPHENS. Pp. 555. Price, \$2.25. New York: The Macmillan Company, 1901.

² Contributed by Dana C. Munro.

³ Pp. 246. Toronto: Copp, Clark Co., 1901.

"THE SOCIAL AND IMPERIAL LIFE OF BRITAIN"¹ is a discussion of the English people in their military activity. The work is not as coherent as might be desired, nor is its exact purpose clear. The topics discussed include: The Evils of War and their Mitigation, War as a Means of Livelihood, War, Colonization and Empire, War and Taxation, War and Prosperity, War and Justice, War and the State of Society, War and the Constitution.

While an immense mass of material has been assembled by the writer, it is of doubtful value, and lacks the marshaling and systematic arrangement which are usually considered requisite for scientific use. The style is easy and popular, but the different parts of the book lack connection with each other and with the title.

L'ÉVOLUTION ÉCONOMIQUE ET SOCIALE DE L'INDUSTRIE DE LA LAINE EN ANGLETERRE² is an excellent description of the rôle played by this important industry in England. Five periods are distinguished in the evolution of the English woolen trade—the early ages, the middle ages, the period of transition, the industrial revolution, and the present epoch. The author sketches in each period not only the processes of manufacture, but also the social surroundings of the industry, its territorial location, the interference of government, the rise of the factory system, the consequent social legislation, crises and depressions, wages, the standard of life and other factors which have entered into the growth of the industry or have resulted from it. The work gives by far the best treatment of the subject which has yet appeared, and it may be hoped that an English translation will soon be made.

THE FIRST NUMBER of the "*Empire Review*"³ has appeared. The periodical is devoted to securing greater unity of the British Empire. If the high standard of the first number is maintained the "*Review*" will be a most important factor in developing a Pan-British sentiment throughout the scattered portions of the empire. The range of subjects treated is very wide, running from a semi-scientific article on "Crown Colony Government" to personal reminiscences of men who have been prominent in colonial government.

¹ By KENELM D. COTES, M. A. Pp. 683. Price, \$3.50. New York: E. P. Dutton & Co.

² By LAURENT DECHESNE. Pp. 282. Price, 3.50 fr. Paris: Larose, 1900.

³ London: Macmillan & Co. Price 11. Issued monthly.

ANNALS OF POLITICS AND CULTURE¹ is an attempt to give a "concise summary of modern times, embracing the life of mankind in its entire thought and action." The author has been confronted by several difficult questions of method in making the summary. The work begins with 1492 and is carried up to 1899. The plan followed is to place upon one page the political developments of each year, and upon the other the most important events of science, art, sociology, literature, philosophy, etc. This method is comparatively successful in its results; the reader is able to turn to any year and there find a fairly complete statement of the most important happenings of the time.

The most serious criticism which might be made upon the work is the comparative lack of attention to economic phenomena. While the date of publication of works on economics and the development of the science of economics itself are noted, yet little is said about the growth of particular industries. A bibliography and a series of chronological tables are appended, and there is a good index. The work will be found quite useful to those who wish to support or combat historical theories.

ROMAN PUBLIC LIFE² gives a presentation of the growth of the Roman constitution and of its practical workings through the republic and the principate. The author takes up the central and local governments and shows the peculiar ability of the Roman people in the field of politics. The work is somewhat legal in character, but is interesting to the student of politics; especially noteworthy is the description of the provincial governments and the political position of the nobility.

VOLUME IV OF PROFESSOR HART'S "American History Told by Contemporaries," brings to a close this admirably selected and edited compilation of sources of American history.³ A dozen pages are devoted to the bibliography of the period from 1845 to 1900, and to suggestions as to the use of sources; the remaining 650 pages are filled with extracts from contemporary writings, grouped under the following topics: Expansion and Slavery; the Contest Renewed; Causes of the Civil War; Conditions of the War; Progress of the War; Reconstruc-

¹ By G. P. GOOCH, M. A. Pp. 530. Price, \$2.25. New York: Macmillan Company. (Cambridge: University Press), 1901.

² By A. H. J. GREENIDGE, M. A. Pp. 483. Price, \$2.50. New York: The Macmillan Company, 1901.

³ *American History Told by Contemporaries*. Volume iv. Welding of the Nation 1845-1900. Edited by ALBERT BUSHNELL HART. Pp. xxi, 732. Price, \$2.00. New York: The Macmillan Company, 1901.

tion; the New United States; American Problems. The difficulty of compiling a record of recent events finds new illustration in this book. The problem of selection must have been extremely complex at a time when the historical judgment is still in suspense. It is interesting to observe that the editor's own contributions are both made in the rôle of a prophet rather than historian. Thirty years from now the reader will find it hard to understand the unfortunate scantiness of the material here presented, embodying contemporary opinion as to the great questions connected with the beginning and ending of the Spanish-American War. On the other hand, for the topics relating to the Civil War and to Reconstruction, he will find here a choice and comprehensive selection from contemporary writings which may well serve as the basis for forming a candid historical judgment.

At the end of the book is an excellent general index to all four volumes. In this index, the reader who is interested in the history of his country has at his command a resource for which he has reason to be profoundly grateful. In the hands of intelligent librarians and teachers these books cannot fail to be of the utmost effectiveness in quickening and vitalizing the study of American history.¹

"LEGISLATIVE METHODS AND FORMS"² is a description of the rivalry between common and statute law, with special reference to the details of preparation, passage and codification of statutes in Great Britain and her colonies. The book also contains a complete and interesting collection of statutory forms for bills on various subjects commonly treated by Parliament. As parliamentary counsel to the Treasury and as a member of the council of the Governor-General of India the author has had exceptional opportunities for observation and experience in the field covered by his work. The American reader will find many interesting contrasts between English procedure and that followed in the United States. The impression is rapidly gaining ground in most countries with representative institution that the present forms of parliamentary government need revision. Under the cover of an apparent equality of the members of the legislature there is arising in all the legislative bodies of the world an intricate legislative machine which is not easily subjected to popular control. The necessity for this machine cannot be disputed, but certain effects of its operation are most objectionable. The author's chapter on "Parliament as a Legislative Machine" will be interesting to the lay reader as well as to the publicist. It shows clearly what is already suspected in most modern countries, namely, that the parliaments are getting away from the people.

¹ Contributed by George H. Haynes, Worcester Polytechnic Institute.

² By SIR COURTENAY ILBERT. Pp. 372. London: Henry Frowde, 1901.

MUNICIPAL ADMINISTRATION IN GERMANY¹ is a brief discussion of the government of Halle a. S., a Prussian city of 150,000 inhabitants. Professor James, who is a well known authority on municipal government, has given an interesting presentation of the constitution and practical workings of the city. He has also grouped together a few practical questions of special importance, such as Civil Service, City Boards and Commissions, Gas and Electric Lighting, the Water Supply, Cemeteries, etc., and has treated of them in some detail. In more ways than one the monograph will be found to suggest a solution of some of our most difficult problems in American municipal government.

"MONEY-MAKING OCCUPATIONS FOR WOMEN"² would appear to be a timely volume. Either desire for independence, or necessity, is making it imperative that girls should choose a career outside of home life. Teaching is no longer considered the only profession for women; natural fitness and ability are required for whatever work is chosen. There is accordingly a need for a carefully prepared book giving full statistics of the occupations in which women are engaged; the training, qualifications and capital required for different careers, and the opportunities for advancement. Miss Kilbourn's book is intended to help women who are thrown upon their own resources. Some chapters contain valuable facts and suggestions. The chapters on boarding-house keeping, professional nursing, kindergarten system, bookkeeping, stenography and typewriting, the culture of violets and other flowers, mushrooms and cellar farms, and women as photographers, are practical. The section on chicken farming, as far as it goes, is well conceived and suggestive.

The book as a whole, however, fails to meet the situation. A logical and coherent classification is wanting. It is full of generalizations, indefinite statements and irrelevant matter. There are too many "ifs" and "shoulds" or "woulds," when only estimates are required. The inadequacy of the opening chapter on "Librarians" illustrates the way in which methods and costs of preparation are frequently ignored. "Do Not Despise the Day of Small Things" is an excellent title and some of the illustrations are good; but here, as elsewhere, the author fails to emphasize the opportunities to be found in satisfying old wants in new ways or in creating new wants. For instance,

¹ *Municipal Administration in Germany as seen in the Government of a Typical Prussian City, Halle a. S.* By EDMUND J. JAMES, Ph. D. (Studies in Political Science.) Pp. 93. Chicago: University of Chicago Press, 1901.

² *Money-Making Occupations for Women.* By KATHERINE R. KILBOURN. 2d edition. Pp. 176. Washington: The Neale Publishing Company, 1901.

clever women are continually developing specialized activities in the domestic field—trunk-packers, house cleaners and openers, buyers, jelly-makers, cake and bread makers, menders, or lunch-servers. A detailed account of this work, giving such examples as are cited by Professor Salmon in her "Domestic Science," would suggest to many women the possibility of trying some new line of work.

An adequate study of technical journals, government reports and current literature would give valuable and surprising information regarding women's occupations. For example, *The Buyers and Dry Goods Chronicle* for January 5 and 12, 1901, lists the buyers for large retail establishments all over the country. The number of women who successfully hold positions as buyers is noticeable. In the 108 stores there are 1,394 buyers, 250 of whom are women (17.9 per cent). These figures represent the individual buyers. In many stores the same man, especially if he is a member of the firm, buys for a large number of departments. This is sometimes true of women, although as a rule they buy for a smaller number of departments. In one store, with forty-three departments and sixteen buyers, six women purchase for twenty-two departments. The largest number of women buyers are found in the following departments: corsets (50 per cent), dress-making (43 per cent), furs (11 per cent), gloves (20 per cent), handkerchiefs (14 per cent), hosiery (10 per cent) and underwear, infants' and misses' goods (40 per cent), jewelry (19 per cent), laces (21 per cent), ladies' underwear (35 per cent), leather, millinery, zephyr and fancy goods (27 per cent).

*LA GUERRE ET L'HOMME*¹ aims to show that war is opposed to humanity, justice, morality, religion and the economic interests of the world. It sets forth as the motives inciting men to war: Economic interest; the love of woman; the desire for the esteem of oneself and of others; attachment to members of the same nation, tribe or party; and antipathy to aliens. The writer attempts to show the varying influence of these motives in different stages of civilization and under different forms of government. National vanity and national antipathy he considers most important at the present time. True patriotism is defined and distinguished from the forms of vanity, self-love and hatred of foreign nations which are often mistaken for it, and forceful arguments are brought forward to show the absurdity of the duellistic interpretation of national honor. Nearly eighty pages are occupied with the horrors of military campaigns.

A belief in the approaching end of war is expressed. Not much

¹ *La Guerre et l'Homme*. By PAUL LACOMBE. Pp. 412. Price, 3.50fr. Paris: 1900. Société Nouvelle de Librairie et d'Édition (Librairie Georges Bellais).

importance is attached to the theory that methods of warfare will become so murderous that men will be deterred from fighting on that account, as it is maintained that means of defence will be improved and tactics will be changed to protect the soldiers from the increased dangers. The principal reason for the ultimate abandonment of war is based upon the growing cost of military campaigns, both directly in the expense of newly invented means of offence and defence, of improved methods of caring for the sick and wounded, of more liberal indemnities granted to the sufferers from the misfortunes of war, and indirectly in the stoppage of production and trade during the period of hostilities. A plan is proposed for a permanent preventive contract, by which two nations agree beforehand that all their disputes are to be settled by arbitration.

The book closes with an appeal to men to take pity upon themselves, since there is no assurance that outside of the human race the universe contains a single being who knows pity. This abrupt tone of change at the end illustrates one of the most conspicuous characteristics of the work,—the combination of the scientific and literary methods of treatment, with sudden transitions from one to the other. Naturally it follows that there seems to be no logical ground of division between the parts. The work as a whole is agglutinative rather than organic.

THE HISTORY OF THE rise and fall of the Spanish empire in the New World becomes daily of more interest to Americans. This is so not only because this rise and fall *has* affected our national growth and development, but because it is destined in the future far more to leave its impress upon the state. For these and other reasons Mr. Lowery's studies¹ in that early period, when the foundations of the Spanish-American empire were being laid, have interest for us.

In a very readable and judicious way he has told us the story of the various expeditions which set forth from Havana and Mexico to explore the regions to the north, regions now embraced within the limits of the Union. The author has not only given us a clear account of such notable incursions as those led by Ponce de Leon, Narvarex, de Soto and Coronado, but also has shown us the proper relation existing between these and a dozen or more of lesser note.

Mr. Lowery has not contented himself with such excellent secondary studies as those bearing the names of Shea, Bancroft, Bandelier, Win-

¹ *The Spanish Settlements Within the Present Limits of the United States.* By WOODBURY LOWERY. Pp. 575. Maps. Price, \$2.50. New York: G. P. Putnam's Sons, 1901.

ship, Helps and Fiske, but has gone to the original sources and has had the satisfaction of pointing out a number of discrepancies in generally accepted narratives. There are, however, after all has been done, numerous problems which can never be solved. For instance, the exact routes of de Soto and Cabeça de Vaca. They can at best but be approximated, and it is with nice discrimination that our author takes up such mooted questions. The route of Cabeça de Vaca across Texas has been warmly debated, and it is not long since Mr. Lummis took up the gauntlet in behalf of Mr. Bandelier as against an article in the *Texas Historical Quarterly*. But this field has been probably for the last time disputed. Judge Coopwood's contributions on de Vaca's wanderings to the above mentioned journal bear the stamp of finality, and it is to be regretted that Mr. Lowery had not the advantage of those papers.

Part III of the work is devoted to the early missionaries, whose struggles and sacrifices are full of heroic devotion to duty, which, as they conceived it, commanded even their lives. The part played by religion, in relation to other motives, as an incentive to exploration and occupation of the country, has been but cursorily estimated in the past. Future students will find in it a fertile field.¹

IF ONE WERE TO SEEK, among the problems of education, two which are of supreme importance he would likely decide that those indicated in the title of Mr. Mark's recent work,² deserve serious consideration. The author, thinking that what we are doing in this country toward the solution of these problems might be of value to educators in England, spent some months in visiting the schools of certain cities and interviewing certain persons identified with American education. These impressions, together with some quotations from current educational literature, he now gives us in book form. It is of course intended for English readers, and to them it ought to prove very suggestive. A great many interesting facts and opinions are gathered together, but the principle of relative importance seems often to have had but little consideration, and many of the experiments are not adequately described. It is to be expected that in a short tour by a stranger, over only a portion of the country, there will be many omissions. The value of this book to American readers is to be found in the impartial observations made by a stranger upon some important parts of our system.

¹ Contributed by W. F. M. Calib.

² *Individuality and the Moral Aim in American Education*. By H. T. Mark. Pp. xliii, 298. Price, \$1.50. New York: Longmans, Green & Co.

ST. LOUIS¹ is one of the most lovable characters in mediæval history. Fortunately the contemporary sources have preserved his deeds and thoughts so fully that he seems to students a very real man and not a mere name in history. It is strange that there has been so little written in English about him; but now we have a satisfactory biography in the "Heroes of the Nation" Series. For Mr. Perry's work is based upon a careful reading of the sources, and in many places it quotes directly the words of men who knew St. Louis intimately. The account of the king's private life is drawn chiefly from Joinville's delightful biography and is excellent. The illustrations are unhackneyed and give a good idea of the thirteenth and fourteenth century art. The twenty-four shields depicted form a useful addition and will be particularly interesting to students of heraldry. In fact we are glad to commend the book as a whole; it is both interesting and scholarly.²

ENGLISH LOCAL GOVERNMENT has been so often described by authors of many different nationalities that it would appear difficult to present anything new on the subject. Dr. Josef Redlich, of Vienna, has, however, taken up the subject anew, and his book,³ which is constructed upon the prevalent German method, will be found quite useful by the German reader. The Anglo-Saxon mind ordinarily revolts at the methods of vivisection which are in vogue upon the Continent, but the results are to a certain extent successful in that a greater clearness and perspicacity is obtained. The American reader will also welcome a scientific analysis of a subject which heretofore has been most difficult to analyze. The bewildering mass of urban and rural districts, of poor-law unions, of school, health, highway and other authorities which make up the complex of English local government, can only be unraveled by the patient investigator who is trained in German methods. Probably the most interesting part of the work will be found in the sections dealing with the origin of English radicalism and its influence on the constitution and the administration, the administrative reform of the middle classes, the democratization of local councils and the new parish government. The author dwells upon the fact that in spite of radicalism and democracy the English national character still retains its conservative strain, and that this conservatism shows itself in the practical workings of the local govern-

¹ *St. Louis. The Most Christian King.* By FREDERICK PERRY, M. A. Heroes of the Nation Series. Pp. 303. Price, \$1.50. New York: G. P. Putnam's Sons, 1901.

² Contributed by Dana C. Munro.

³ *Englische Lokalverwaltung.* By Dr. JOSEF REDLICH. Pp. 835. Price, 20 m. Leipzig: Duncker & Humblot, 1901.

ment. Dr. Redlich has advanced beyond other authors who have described the English system, in that he has given a more detailed study to the recent changes in the parish.

A TEN YEARS' WAR, by Jacob Riis,¹ describes the fight with the slum which has been carried on in New York during the last decade. It reviews the efforts made to secure for the tenement districts better housing conditions, good lodging-places, parks, play-grounds, clean streets, and adequate school provisions. It presents the problems of the slum population as well as those of the slum environment and shows the progress which has been made in improving both. With his usual hopefulness the author is still looking forward to better things in the future. He believes that an awakened civic conscience and a more thorough and intelligent sympathy with the poor will finally put an end to the slum evil.

NAPOLEON'S COLONIAL POLICY is discussed in the tenth volume of Oldenbourg's Historical Library.² Dr. Roloff, the author, gives an interesting description of the comparatively unknown plans of Napoleon regarding his empire beyond the seas. The successive defeats which the French met on the ocean rendered the fulfillment of these plans impossible, but the author succeeds in establishing the fact that the Emperor's world-dreams included a systematic development of American, African, Asiatic and West Indian colonies. The description of the failure of these gigantic plans before the resistless force of the British navy lends additional interest to the present discussion of sea-power. The book will point a moral for those nations who contemplate the establishment of colonial empires.

THE ORIGIN OF REPUBLICAN FORM OF GOVERNMENT³ has appeared in a second revised edition. Mr. Straus traces the religious elements which influenced the adoption of the republican form of government in the United States. He lays special stress upon the influence of the Hebrew commonwealth on our own. The children of Israel formed the first federal republic; they separated the Church from the State, recognized civil equality, and practised many political customs which are perpetuated under the American government.

¹ *A Ten Years' War*. Pp. 267. By JACOB A. RIIS. Houghton, Mifflin & Co., 1900.

² *Die Kolonialpolitik Napoleons I.* By DR. GUSTAV ROLOFF. Pp. 258. Price, 5m. Munich and Leipzig: R. Oldenbourg.

³ *Origin of Republican Form of Government in the United States of America*. By OSCAR S. STRAUS, Litt. D., LL.D. Pp. 151. Price, \$1.25. New York: G. P. Putnam's Sons, 1901.

THE FIELD OF CHILD STUDY¹ has been particularly tempting to the enthusiasts and emotionalists in education and they have harrowed our feelings, bothered us with more or less silly *questionnaires*, and made the study of education almost a laughing-stock by the absurd claims which some of them have advanced for their "discoveries." One naturally looks askance at works bearing on this subject, and therefore it is pleasant to be able to commend a volume as modest, sane, interesting and suggestive. This book is a valuable aid to the teacher at work, and its twenty chapters have a special value as affording topics for discussion at the teachers' meetings. The chapter on "imagery" impresses the reader strongly and the handling of symbolism, as expounded by the followers of Froebel, is well done.²

EFFICIENCY AND EMPIRE³ is an interesting discussion of the present condition of English politics. Mr. Arnold White is well known as an able writer whose thorough familiarity with the ins and outs of political life renders him capable of treating his chosen subject. The book is a scathing indictment of the present parliamentary system of Great Britain in foreign policy, in internal reforms, in the administration of the Treasury, in colonial government, in the navy, the consular service, the school system, and last, but not least, in the war office.

The conduct of the ruling classes of Great Britain is shown to have fallen short of business standards. Mr. White is not an ardent Boer sympathiser; he believes that the war was inevitable, but his criticism is directed toward the way in which it was brought on and especially toward the persistent blundering of the authorities at London during the course of the war. He gives an admirable summary of the measures which are necessary to extricate the British government from its present decadence. The criticism is so keen and the suggestions appear to be so well borne out by what is known on this side of the water about English conditions, that Mr. White's summary deserves to be widely circulated among all Anglo-Saxons. Briefly condensed, the author's suggestions are as follows:

Give more place to the services of experts in the government.

Define more sharply the responsibility of each position in the civil service.

Punish mistakes without delay.

¹ *Notes on Child Study*. (Columbia Contributions to Philosophy, Psychology and Education.) By EDWARD LEE THORNDIKE. Pp. 157. Price, \$1.00. New York: The Macmillan Company, 1901.

² Contributed by George Herbert Locke.

³ By ARNOLD WHITE. Pp. 315. Price, 6s. London: Methuen & Co., 1901.

Dismiss the unfit and the unsuccessful.

Reward directly those who render *extraordinary* service.

Inspect all offices at irregular times.

In bestowing honors let the nature of the service be stated when the honor is conferred.

Honor the schoolmaster and bring education up to date.

Abandon the practice of conferring peerages upon liquor dealers.

Divorce the government from the influence of the priest, the lawyer and the stockbroker.

Abandon the practice of appointing commissions of inquiry and ignoring their recommendations.

Prohibit the present custom of giving "charities" or subsidies by members of Parliament to their constituents.

Choose ministers only for personal fitness.

Abandon the policy of tolerance toward indiscriminate attacks upon Great Britain under the guise of humanitarianism.

REVIEWS.

Histoire Politique de la Révolution Française. By A. AULARD. 8vo. Pp. xii, 805. Price 12 fr. Paris: Armand Colin.

Aulard has been so closely associated with all the recent monograph and source work on the French Revolution that he is clearly recognized as the foremost student of the period. He began his special studies as far back as 1879, a few years later he began his lectures on the Revolution at the Sorbonne, and was made Professor at the University of Paris. He is the editor of *La Révolution Française*, and has edited and published an almost incredible amount of source material on the period. In the present work the results of his long and extensive researches find expression in a remarkably perspicacious and forceful history of the political development in France from 1789 to 1804.

The author set himself the task of writing a scientific work. "It is my ambition," he says, "that my work shall be regarded as an example of the application of the historic method to the study of an epoch disfigured by passion and legend." That such an effort was much needed will appear on a moment's reflection upon the general character of the works on the Revolution by such writers as Louis Blanc, Thiers, Carlyle, Lamartine, Taine, Von Sybel and others. In the realization of his ambition Aulard enjoyed a marked advantage over his predecessors. Only in our own day is a thoroughly unprejudiced and scientific history of the Revolution possible. Personal and national prejudices obscured the vision of most of the earlier writers on the

subject. The application of historic criticism and the scholarly weighing of the evidence had not been made, and it was virtually impossible to construct a scientifically accurate history out of the great embarrassing mass of material at hand. The sifting process has been going on for over a century; for the last twenty years historic methods have been employed in the criticism and estimation of the sources, and a scholarly history conformable to Aulard's ideal has been brought within the range of possibility. No other proof is needed than the volume now before the public. So far as the political development of the Revolution is concerned the author has been eminently successful.

The work falls into four divisions: The origins of the Democracy and of the Republic (1789-1792). The democratic Republic (1792-1795). The Republic of the middle class (1795-1799). The Republic based on the plebiscite (*la République plébiscitaire*) (1799-1804). This division is in itself unique. It does not follow the usual method of marking the periods by a series of dramatic events, striking in themselves, but after all only surface phenomena of the deep-seated political transformation upon which Aulard bases his divisions. Indeed one fails to find much that has long occupied a prominent place in other works on the Revolution. There is no attempt to draw pictures, after the fashion of Taine and others. Facts are chosen because of their influence upon the development, not because they are dramatic or entertaining. The taking of the Bastille, and the march of the women to Versailles receive the barest mention. The method of exposition is topical, rather than chronological. This involves a certain amount of repetition, a necessity with which the author never hesitates to comply.

Aulard is strongly in sympathy with the vital issues of the Revolution, which he considers to be a struggle for equality of rights and the sovereignty of the nation in the state. He finds the preparation for the Revolution in the great transformation of the intellectual life of the nation in the eighteenth century. It came to a head in the opposition between the king and the National Assembly, the one standing for traditional authority, the other for the new principle of the sovereignty of the nation. The struggle is precipitated by the people of Paris, the taking of the Bastille and the spontaneous reorganization of France through its municipalities and their relation to the assembly, into a new and unified nation. The Constitutional Assembly organizes an administrative system for the new state which assumes the form of the limited monarchy, resting for its support upon the upper middle class. A series of chance circumstances brings the small democratic minority into the ascendancy. The defeats on the frontier, the flight, capture and treason of the king, result in Louis XVI. being set

aside. For the first time *universal suffrage* is introduced. A few months later, September 22, 1792, the democratic republic is established. The dangers of the nation, which follow immediately afterwards from the invasion of her territories by foreign armies, and from the civil war at home demand a strong rule. The revolutionary government is set up; the Committee of Public Safety, the Revolutionary Tribunal, the Representatives on Missions, etc., are all essentially war measures, and all certain to fall as soon as the situation which called them forth disappears. Hence the reaction against the Terror and the Jacobins is easily successful. A new republic called by Aulard (*la Republique bourgeoise*) is set up under the Directory. The royalist reaction and the revival of the Jacobins produces a feverish fear among the middle class. This makes the overthrow of the Directory an easy matter for Napoleon. Under Napoleon the government is gradually but irresistibly transformed into a despotism of the worst kind. Ten years of tyranny marked by carnage and bloodshed followed the advent of the Corsican. The political work of the Revolution was overthrown and France has not yet made good this unfortunate loss.

The work is so well done that criticism is out of place. Still, we cannot but feel sorry that such admirable ability and industry, and such a thorough mastery of the constructive principles of history should confine itself so exclusively to a one-sided study of the Revolution. The writer who finds the *causes* of the origin and development of parties, of the changes in public opinion, and the overthrow of one form of government for another so exclusively in political events is overlooking the deep-seated social and economic reasons basic for that development. Where the attempt is merely to tell *what happened* in the political development, social and economic conditions may be left out of consideration. Immediately however, when the political historian goes a step further and seeks to *account* for the political phenomena, then even he cannot afford to disregard that side of the national life which determines to such a large degree the form and development of political institutions.

WM. E. LINGELBACH.

University of Pennsylvania.

A Dictionary of Philosophy and Psychology. Written by many hands and Edited by JAMES MARK BALDWIN, with the co-operation and assistance of an International Board of Consulting Editors. In three volumes, with illustrations and extensive bibliographies. Vol. I. Price, \$5. New York: Macmillan Company, 1901. Although the primary objects of this dictionary are, as the title indi-

cates, philosophy and psychology, it also includes many of the principal conceptions of the social, economic, biological and physical sciences. It contains a terminology in English, French, German and Italian. It is a "dictionary with encyclopædic features." In the first place it aims "to understand the meanings which our terms have and to render them by clear definitions;" in the second place "to interpret the movements of thought through which the meanings thus determined have arisen, with a view to discovering what is really vital in the development of thought and term in one." A pedagogical end has been held in view throughout. It is not primarily intended for the specialist, but for the student, and hence the form which it has finally taken has been largely determined by the desire to state "formulated and well-defined" results rather than to recount discussions. The biographical notices are brief, but to nearly all articles short bibliographical notes are appended, and volume three is to contain a comprehensive bibliography.

In the present review I wish to call attention chiefly to one aspect of the book. The editor has endeavored to combine two distinctly different ideals as to what such a dictionary should be—to give an impartial survey of the conceptions which have actually been attached to the words given and of the theories grouped about those conceptions, and to sift from this mass of material those conceptions and theories that should be regarded as valid and therefore worthy of authorization.

Many of the faults of the dictionary can be traced to the second of these two ideals. The greater number of the sciences with which it deals are as yet in an imperfect condition, wide differences of opinion exist, and it is impossible that any one man or group of men should decide which of these opinions are to be authorized and which are to be condemned. In so far as the second ideal has been pursued the book tends to become partisan and, in some cases, even polemical. This fault does not affect all the articles in equal degree, but there are few which it does not mar to some extent. If one, however, accepts the dictionary for what it is—a collection of brief articles by scholars of acknowledged standing in their several fields, giving their own views and, with varying degrees of completeness, the views of others on questions which are for the most part *adhuc sub judice*—he will find in it a vast amount of material arranged conveniently for reference, and bibliographical notes which will enable him to pursue any given subject further.

Many of the articles are admirable summaries. Among those meriting special mention are four by Professor Royce on Greek Terminology, Latin and Patristic Terminology, the Terminology of Kant

and that of Hegel (the last two in particular being conspicuous examples of keen analysis and lucid statement), the editor's article on "Belief," President Wheeler's on "Language," and a long article on "Laboratories of Psychology," by Professor Warren and others.

WILLIAM ROMAINE NEWBOLD.

University of Pennsylvania.

Inductive Sociology: A Syllabus of Methods, Analyses and Classifications, and Provisionally Formulated Laws. By FRANKLIN HENRY GIDDINGS, Ph. D., LL. D., Professor in Columbia University, New York. Pp. 302. Price, \$2.00. New York: The Macmillan Company, 1901.

Suggestive and stimulating as Professor Giddings' other works have been, for the scientific student of society this book has a much higher value. Indeed, it may be doubted whether as an illustration of the application of scientific method to the study of social phenomena it has a superior. It is a most successful attempt to show how that method can be applied to the study of the problems of social life. It is perhaps not too much to say that this book, despite certain faults, represents the high-water mark of scientific sociology in America. As such its value should be cordially recognized by every American sociologist.

The book is a radical departure in that it proposes to demonstrate even the most general propositions of sociological theory by the statistical method. The author admits that exact statistics cannot be obtained, but thinks that exactness in statistics is not required for the demonstration of social laws; that all that is necessary to prove in many cases in the quantitative analysis of social facts is the "more or the less."¹ Whether this important modification of statistical method is sound or not, every scientific student of society will commend the proposal to make larger use of statistical material. Professor Giddings deserves the appreciation of his co-workers for this departure from the beaten path of sociological method.

While the work is free from those errors in logic and psychology which characterized his earlier work, "The Principles of Sociology," Professor Giddings has not wholly broken away from his fallacies of the past. He still attempts to interpret all social phenomena in terms of one elementary fact, namely, "like-mindedness," or "the consciousness of kind."² So far as Professor Giddings makes this his leading theory, and attempts to make the whole social process

¹ See pp. 23, 24.

² See Part II, chapters i, ii, iii and iv.

revolve around this fact, he is guilty of leaving the standpoint of inductive sociology and of reducing induction to a mere method of fortifying deduction. Part II, on "The Social Mind," shows no clear evidence of formulation through induction. It is in spirit and method, in fact throughout, deductive; and induction, when used, is used to corroborate the "leading theory." We can hardly properly call this "inductive sociology." If Professor Giddings had interpreted social phenomena in terms of other elementary facts, such as "co-ordination" and "imitation," he would not again have been guilty of letting his "leading theory" run away with him, and thus vitiate the whole process of induction. The process of induction must be controlled and checked, not by one "leading theory," but by many hypotheses. The emphasis of this elementary principle of inductive logic would have been salutary in a present work on inductive sociology.

Professor Giddings does not often enough take the functional point of view in his description of social reality. He does not describe the social process *teleologically*, but looks at it from the point of view of structure. He looks at society in cross-section and not in movement.

The view he presents of society is *non-evolutionary*. It leads one to see it as a stationary process, confined within the limits of apparent antecedent causes. However, Professor Giddings meets this criticism by a statement in the preface that "studies of the historical evolution of society, and of the deeper problems of causation, are not included." In a work of the scope of Professor Giddings' the functional and evolutionary points of view should have been more largely introduced. There can be no true view of society which is not functional and evolutionary. The process of society is essentially and primarily teleological, and any interpretation not teleological will be mechanical and therefore false.

The most important criticism of the book is that Professor Giddings lays more stress on the method of quantitative analysis than on the nature of the subject-matter of sociology. This position is in no way inconsistent with a full appreciation of the value of the statistical method. Methods of measurement should be employed in sociology wherever they can be, in order to give the science as much exactness as possible. But care should be taken not to over-emphasize mathematics in the methodology of the social sciences, for much of the phenomena with which they deal is capable only of qualitative analysis and not of quantitative measurement. If this fact be not clearly recognized at the outset the whole subject of sociology may be easily brought into disrepute, for a sociology that wholly depends upon mathematical method is foredoomed to failure. Sociology, in com-

mon with all psychical sciences, submits itself to logic rather than to mathematics as its controlling and regulative discipline, and its essential method of generalization is not through quantitative measurement, but rather through qualitative analysis of facts.

CHARLES A. ELLWOOD.

University of Missouri.

Introduction to the Study of the Dependent, Defective and Delinquent Classes, and of Their Social Betterment. By CHARLES RICHMOND HENDERSON. Pp. viii, 397. Price, \$1.50. Boston: D. C. Heath & Co., 1901.

The work is a revision of a volume published eight years ago under the same title. Since the earlier edition many changes have been made and matter has been added as a result, the author states, of "wider reading and further practical experience in charity organization work and class-room instruction." The book is divided into four parts: 1. The Phenomena of Dependence and Their Explanation; 2. Social Organization for the Relief and Care of Dependents; 3. Social Arrangements for the Education, Relief, Care and Custody of Defectives; 4. An Introduction to Criminal Sociology. The first part is theoretical and considers the general conditions which are responsible for the Social Debtor and the Anti-Social Classes. The other parts are largely practical. The work is comprehensive and well suited to use as a text. In fact it is the only work in English covering the entire field. In the practical parts the work is largely descriptive, giving methods and purposes in treating the dependent, defective and criminal Classes. The author, however, has definite opinions as to the causes of the various classes receiving special care by society, and passes judgment on the institutions organized for their treatment and the methods employed. This adds greatly to the value of the work. We are interested in knowing what institutions exist and what methods are employed in them to care for these various classes; but we feel that a man who has devoted years to both theoretical study and practical work has a right to speak with authority.

The author severely arraigns the system of public indoor relief where sexes mingle, where respectable poor people are compelled to associate with the feeble-minded, "the debased, the diseased and criminal," and where children are compelled to grow up "in these abodes of the unfit," where "the natural avenues to wholesome living—industry, school, church—are closed." He advocates that children should never be kept in county poorhouses, that "men and women should be housed in non-communicating wards," and that "inmates should be separated on lines of character and habits."

In the case of the unemployed and homeless dependents, the worst system prevails where free lodgings are furnished in police stations, in which all sorts and conditions of men are allowed to sleep in the same room. The author commends wayfarers' lodges, where food and bed are furnished in compensation for labor which the applicant can perform. The workhouse is also commended where the capable who are unwilling to work are sent. A system which should meet all the requirements demanded in the treatment of these classes must provide for "emergency relief, for ordinary conditions and for prevention."

Over one-third of the work is devoted to criminal sociology, or crime from the standpoint of social welfare. After considering the conditions of criminality, its manifestations, its treatment and the development of ideals regarding the proper attitude of society toward the criminal classes, the author advocates measures looking to a removal of the social causes of criminality. In this the work represents the modern attitude toward criminality. Among the social causes mentioned are defective economic conditions, the prevalence of standing armies and the custom of drinking intoxicants. The reader cannot close the book without wishing that more space had been devoted to an interpretation of the social causes of crime and less to the descriptive part. That this is really an undeveloped field is perhaps responsible for the little space devoted to it.

Ohio State University.

J. E. HAGERTY.

The Social Problem. By J. A. HOBSON. Pp. xi, 295. Price, \$2.00. New York: James Potts & Co., 1901.

The confusion of thought in this book is shown in the summing up of the study of the theory of utility. To really understand the concrete utilities of a national income "we require to know (1) What the goods and services are (2) who will get the use of them (3) how far the actual consumers are capable of getting the highest use out of them."

The third question is largely insoluble. No method of statistics can discover and tabulate the facts required for any answer which would be available in scientific investigation. From the point of view of ethics, the last question is highly interesting, and if it could be answered with any degree of exactness, it would seem to demand an effort to see that the right persons secured the commodities so that only the highest use might result in the greatest good. Socialism is unable to invent a method by which commodities can be distributed in the exact measure of the wisdom and opportunities of the recipients. The discussions in this collection of essays are not without value,

because of the warnings with respect to the administration of charity and the contention as to the inefficiency of consumers' leagues.

The argument for socialism is based upon what is called the "natural" right of property. It is an infringement of these "rights" for an individual to have less or more than the "physical and moral stimulus to productivity." There should be neither want nor surplus. Bequest and inheritance are only "palliatives of social disease." The fallacy of this discussion, as in every plea for an artificial equality, is found in the fact that the highest productivity cannot be secured unless the producer has the stimulus of indefinite surplus. The inheritance of property has been, in by far the larger number of cases, of great advantage in every way. The social parasite is more conspicuous than prevalent. Were the stimulus of the family idea weakened by the elimination of the incentive to toil found in the effort to provide for posterity, economic conditions would at once suffer.

The argument against specialization in industry, that making production more efficient entails a direful "human cost," in the degradation of the workingman, is a statement that cannot be verified. Historically, workingmen were never so intelligent and capable as now. Theoretically, if the employment uses but a part of the man in earning a livelihood, there is a surplus of time and power for the larger circle of human interests.

SAMUEL G. SMITH.

University of Minnesota.

History of the Working Classes and of Industry in France Before 1789. By E. LEVASSEUR, Member of the Institut. 2 vols. 8vo. Paris: Rousseau, 1900.

Levasseur is an example of what perseverance will do in the development of genius. Forty years ago he won a prize in an academic competition; that essay was the beginning of his work as author. It formed the basis of the "History of the Working Classes and of Industry in France" as it now appears. In the interval he has published his "History of the Working Classes of France from 1789 to 1867," and a work on "The American Workman" in two short volumes, reduced to one in the Johns Hopkins translation. He has also given the world a number of volumes on Geography, Statistics, Education, Politics and Social Science—all valuable contributions.

Founded upon an almost encyclopædic knowledge of the facts of historic development, his new edition, or more properly speaking his new work on the French Working Classes, is destined to be the standard of reference for men in both economic and historical fields. It

is to be hoped that health and strength and years may be spared him to recast and rewrite with the same fulness his projected work on French Industry from the Revolution to the close of the nineteenth century. No teacher can leave a better legacy to his own students and to later generations.

He divides the work under review into seven periods: (1) That of Roman rule, with the workman as slave to his guild under imperial despotism; (2) the invasions, with the workmen scattered and living as serfs on the land of some great lord or as monks in cloisters—the working classes almost annihilated under the barbarians; (3) the period of feudal life and of the crusades, when the workmen again re-established their guilds, and industry and commerce flourished; (4) the Hundred Years' War, with the successful effort of the workmen to strengthen their organization and to secure the support of church and crown; (5) the Renaissance, marked by the triumphs of art and industry and by the growth of the power of the workingmen; their final repression under Henry IV. by vexatious regulations and heavy taxation; (6) the eighteenth century, with the economists as leaders of public thought and their struggle to free labor from taxation and vexatious interference on the part of the state; (7) the Revolution, that at once both overthrew the state and trade corporations.

The history of these eighteen centuries is drawn from the great number of special works which owe their value to leading French writers, but who have limited their research to narrow subjects, and from the inventories of the archives of departments and communes, of which some 350 volumes have been printed. Instead of weighting down his pages, however, with the bibliography of his subject, Levasseur has made this one of his most valuable independent contributions to the Academy, of which he is a distinguished member, thus enriching its publications and giving to students the benefit of his research.

J. G. ROSENGARTEN.

Philadelphia.

The Other Man's Country: An Appeal to Conscience. By HERBERT WELSH. Pp 257. Price, \$1.00. Philadelphia: J. B. Lippincott Company, 1900.

"The Other Man's Country" is a discussion of the action of the United States in the Philippines, and an arraignment of the policy pursued by the McKinley administration with regard to those islands. Of Mr. Welsh's four chapters, two are historical in character, and two didactic. The first reviews the events of the two years preceding the battle of Manila, the second details the history of American rule in

the Philippines and analyzes some disputed questions of chronology and responsibility. The third is a forecast of the probable effects of the imperialist policy upon the future position and character of the United States. The fourth is a formal "appeal to conscience."

Mr. Welsh tells a familiar story—one that has been told and retold in the contemporary press with every possible variation, but he tells it in an unfamiliar way. He gives chapter and verse for every statement; he has consulted the authorities, official and other; he has collated the fugitive articles of contemporary writers. He gives as the results of his labors a clear, connected statement of the anti-imperialist's point of view—probably the best presentation yet made.

Mr. Welsh is not an historian, for he is too near to and too deeply interested in the events of which he takes account. That his book is a plea for one side of the present controversy over national policy he would be the last to deny. It is a plea in the same sense that every application of ethical principles to concrete conditions must be a plea. It must influence many, for it adds to wide information, logical analysis and high moral purpose, the charm of clear and persuasive English.

H. PARKER WILLIS.

BOOKS RECEIVED FROM OCTOBER 1, 1901,
TO DECEMBER 1, 1901.

- Abbott, F. F., A History and Description of Roman Political Institutions. Boston: Ginn & Co. \$1.60.
- Adams, G. B., and Stephens, H. M., Select Documents of English Constitutional History. Macmillan. \$2.25.
- Bayles, G. J., Woman and the Law. Century Co. \$1.40.
- Blondel, G., La France et le Marché du Monde. Paris: L. Larose. 2.50 fr.
- Bolles, J. A., Under Reckless Rule. New York: Abbey Press. \$0.75.
- Bourne, E. G., Essays in Historical Criticism. Scribners. \$2.00.
- de Brandt, A., Droit et Coutumes des Populations Rurales de la France en Matière Successorale. Paris: L. Larose. 7.50 fr.
- Cheyney, E. P., An Introduction to the Industrial and Social History of England. Macmillan. \$1.40.
- Clark, J. B., The Control of Trusts. Macmillan. \$0.60.
- Committee of New Century Club, Statute of Every State in the United States Concerning Dependent, Neglected and Delinquent Children. Philadelphia: G. F. Lasher.
- Cornish, F. W., Chivalry. Macmillan.
- Crozier, J. B., History of Intellectual Development on the Lines of Modern Revolution. Longmans, Green & Co. \$3.50.
- Davis, W., John Bull's Crime. Abbey Press. \$2.00.
- De Molinari, G., Les Problèmes du XXe Siècle. Paris: Guillaumin et Cie.
- Dupriez, L., L'Organisation du Suffrage Universel en Belgique. Paris: L. Larose. 3.50 fr.
- Autobiography of Benjamin Franklin. Century Co. \$1.25.
- Giddings, F. H., Inductive Sociology. Macmillan. \$2.00.
- Giraud, V., Essai sur Taine. Paris: Hachette et Cie. 3.50 fr.
- Glasson, E., Le Parlement de Paris. Paris: Hachette et Cie. 15 fr.
- Halévy, D., Essais sur le Mouvement Ouvrier en France. Paris: M. Georges Belais. 3.50 fr.
- Hapgood, N., George Washington. Macmillan.
- Hart, A. B., The Foundations of American Foreign Policy. Macmillan. \$1.50.
- Heller, V., Der Getreidehandel und seine Technik in Wien. Leipzig: J. C. B. Mohr. 3.60 m.
- Henderson, C. R., The Social Spirit in America. Chicago: Scott, Foresman & Co. \$1.50.
- Hirsch, M., Democracy Versus Socialism. London: Macmillan & Co. 10 s.
- Hulbert, A. B., The Old National Road. Columbus: A. H. Smythe. \$1.50.
- James, E. J., Municipal Administration in Germany. Chicago: University Press.
- Körösy, J. von, Die Finanziellen Ergebnisse der Actiengesellschaften Während des Letzten Vierteljahrhunderts (1874-1898). Berlin: Puttkammer und Mühlbrecht.
- Letourneau, Ch., La Psychologie Ethnique. Paris: Schleicher frères. 6 fr.
- Lincoln, C. H., The Revolutionary Movement in Pennsylvania, 1760-1776. Philadelphia: University of Pennsylvania. Ginn & Co., Agents.
- Maltbie, M. R., The Street Railways of Chicago. New York: Reform Club, Committee on City Affairs.

- Marchant, J. R. V., *Commercial History*. Part I. New York and London: Isaac Pitman & Sons. \$0.40.
- Monroe, Paul, *Source Book of the History of Education for the Greek and Roman Period*. Macmillan.
- Roberts, P., *The Anthracite Coal Industry*. Macmillan. \$3.50.
- Robinson, C. M., *The Improvement of Towns and Cities*. Putnams. \$1.25.
- Sewall, Hannah R., *The Theory of Value Before Adam Smith*. Publications of American Economic Association, Vol. II, No. 3. \$1.00.
- Steffen, G. F., *Studien zur Geschichte der Englischen*. Stuttgart: Hobbing & Büchle. 7 m.
- Strong, F., *The Government of the American People*. Boston: Houghton, Mifflin & Co. \$0.65.
- Terry, B., *History of England from the Earliest Times to the Death of Queen Victoria*. Chicago: Scott, Foresman & Co. \$2.00.
- Webster, S., *Two Treaties of Paris and the Supreme Court*. New York: Harpers. \$1.25.
- White, A., *Efficiency and Empire*. London: Methuen & Co. 6 s.
- Windelband, W., *A History of Philosophy*. Macmillan.
- Wisser, J. P., *The Second Boer War, 1899-1900*. Kansas City, Mo.: Hudson-Kimberly Pub. Co. \$2.00.

NOTES.

I. MUNICIPAL GOVERNMENT.

The League of American Municipalities held its fifth annual convention at Jamestown, N. Y., August 21-23, 1901. About sixty cities in twenty states sent delegates. Among 175 accredited delegates, *i. e.* city officials, there were about twenty mayors and a half dozen engineers, ten other departments having from one to five representatives. Six business sessions were held, at which a dozen prepared papers were presented. Several valuable papers were read by title, including "Self-Government for Cities," by Professor Frank Parsons, and "Practical Applications of Uniform Accounting to City Comptrollers' Reports," by H. S. Chase, of Boston, this last being probably the most important of the papers which appear in the proceedings. Of the principal papers published six, or about one-third, recount actual experiences and have to do with garbage disposal, cost and durability of brick pavements, bituminous pavements, steel and concrete in municipal construction, municipal restriction of vice and municipal lodging houses. The remaining papers are for the most part general, and with one or two exceptions do not show signs of careful preparation. At the sessions there was little relevant discussion of material presented, nor were many questions asked. About the hotels, however, and during recesses there was a liberal interchange of experiences, showing that delegates, if not caring for the theories and rhetoric of other delegates, were really interested in what cities had done or attempted.

A visitor was impressed by the predominance of the smaller cities, of which there are scores, and the non-representation of the large cities, of which there are very few. That East St. Louis sent twenty-seven delegates and Wilmington, Del., sent fifteen, means more for the dissemination of important practical information than for Chicago and New York to have sent their entire official staffs. Secondly, the convention demonstrated that generalizations and theories based upon one or two years of service in any municipal office are not necessarily practical. So long as officials told only what they knew they held the interest of fellow-officials and contributed to the most worthy ends for which the League stands.

Alabama Constitutional Convention.—*Municipalities.*—The work of the Alabama Constitutional Convention was completed on September 4, when the constitution was signed by the members and submitted to the people for ratification. The chairman of the committee upon

¹ Contributed by Albert E. McKinley, Ph. D., Philadelphia, October 8, 1901.

municipalities was Hon. John B. Weakley, president of the League of Alabama Municipalities, and well known for his efficient management of the affairs of the city of Florence during his service in the office of mayor. With Mr. Weakley, fourteen other members were associated upon this committee. On the twenty-fourth of last June the committee reported a well-designed scheme of municipal government to the convention. The Assembly should have authority to divide municipalities into four classes and pass general laws for the organization and control of each class; and it might assign cities to the respective classes according to their population at the last Federal census. Any city having over 20,000 inhabitants should have the privilege of appointing a board for charter revision, and the right to accept or reject the amended charter by popular vote. No public franchises should be given for a longer term than twenty years, and thirty days' advertisement must be made of application for franchises. No municipal bonds should be issued except after popular vote sanctioning the issue. No railway, telegraph, telephone, heating or lighting company should be permitted to lay tracks or erect apparatus upon the streets of cities or towns without the consent of the municipalities concerned. Restrictions were placed upon the taxing and borrowing powers of municipal corporations; but exceptions were made in favor of nine named corporations.

The work of the committee was largely set aside by the convention, which made but slight advance toward grouping of municipalities or a general system of local government. By the completed document, indeed, the legislature is forbidden to pass special acts incorporating municipalities, but the committee's suggestion of a mandatory provision compelling the establishment of four classes of cities and towns was cut out. The radical proposal for the amending of city charters by popular vote was tabled in convention. On the other hand, the document contains the provision giving municipal corporations control of their own streets. The convention also took strong ground on the public franchise question, limiting the term of all grants by municipalities, except to railroads other than street railways, to a period of thirty years.

Definite limits are placed, both to taxation and to borrowing, by the new constitution. The general limit to the taxing power is one-half of one per cent upon the valuation as fixed by the last state assessment; but this is subject to several exceptions. Thus a tax of one per cent may be levied to pay debts contracted before December 6, 1875; the city of Mobile may levy a tax of three-quarters of one per cent; Montgomery may levy one and one-quarter per cent; and sixteen other cities and towns may exceed the one-half of one per cent in certain proportions and for certain specified purposes.

No county may exceed a total indebtedness of three and one-half per cent of the assessed valuation of property therein; except where that proportion is at present exceeded, in which case an addition of one and one-half per cent may be made. For towns under 6,000 population the general limit of indebtedness is five per cent; and for towns exceeding that population, the general limit is seven per cent. But in both of these cases there are exceptions in favor of certain forms of indebtedness and in favor of enumerated towns. The seven per cent limit is extended to the towns of Gadsden, Ensley, Decatur and New Decatur, although their population varies between 2,100 and 4,437; the limit does not apply to loans contracted for school houses, water works or sewers; and "nothing herein contained shall prevent any municipality except the city of Gadsden from issuing bonds already authorized by law." The two sections containing this jumble of general and special legislation close with the words: "This section shall not apply to the cities of Sheffield and Tuscombia."

This is local legislation of the most pronounced type. When the sections were under discussion in the convention, one member after another had an exception to introduce; and at last when a delegate protested against such special provisions, twenty cities or towns had been specifically favored in the constitution. These municipalities, with but five exceptions, are growing communities, showing a higher rate of increase in population between 1890 and 1900 than the average for the whole state; and they vary in size from a population of 551 up to 38,469.

Upon the whole the municipal provisions of the constitution are very conservative. The restrictions upon taxation and indebtedness are good features, but they are rendered almost nugatory by the special legislation which the convention adopted. A like privilege of special legislation, fortunately, it forbade the legislature to exercise. Local control over municipal charters was refused, but provision was made for the submission of all loan proposals to popular vote. The most radical feature was the thirty years' limit upon public franchises.¹

Utah.—*Woman Suffrage and Municipal Politics.*¹ Utah was the second among the western commonwealths to extend to women the privilege of voting at general elections, Utah's woman suffrage bill having been approved two months after a similar bill had passed the legislature of Wyoming. Though the institution may be regarded in a general way as one of the natural products of the West, in Utah it has had a far more sensational meaning and history than are attached to it in any other locality. Here, as elsewhere, it is now but a com-

¹ Contributed by Professor G. Corey

monplace of western life; originally it was one of the most hated allies of polygamy, though suggested by its inventor, so far as Utah is concerned, as the rock upon which polygamy was to end its existence.

In the early days of the Utah agitation the belief was common that the women of Utah were being drawn into plural marriages contrary to their sentiments, and that if given the elective franchise and a secret ballot they would accomplish their deliverance by diverting all political power from the supporters of polygamy into the hands of its enemies. In accordance with this idea, some time in 1869 Representative Julian, of Indiana, introduced into the House of Representatives a bill giving to the women of Utah the elective franchise, for the purpose, as alleged, of abolishing polygamy. Senator Pomeroy, of Kansas, about the same time introduced a similar measure into the Senate. Neither of the bills became law, but the men against whom they were designed quickly perceived in this stupid error of their adversaries the suggestion of a new advantage to themselves. They accordingly proceeded at once through the territorial legislature, which they controlled at that time, to legalize woman suffrage.

The first succeeding election fully revealed how very little the opponents of polygamy then knew of the real character of that problem. It being manifested that the woman's vote was indeed a new moral as well as political intrenchment for polygamy, various efforts were made through the federal courts and by other means to invalidate the woman suffrage law, but the practice continued without interruption until the law was finally annulled by a provision in the Edmunds-Tucker law, approved in 1887, which compassed likewise the disfranchisement of all male voters practicing plural marriage.

This was indeed the end of woman suffrage as an adjunct of polygamy; but the institution for its own sake remained as an active moral principle in the social fibre of the commonwealth, and nine years later, when the enabling act had been passed for the admission of Utah into the Union, and the people and the institutions of the territory were unconsciously adjusting themselves to the contemplated change in their political life, then this great principle of woman's right, divested of the hateful associations of its infancy, matured, compact and assertive, arose again into public thought, and with so forceful a presence as to meet with scarcely a pretence of resistance; and so it became a part of our fundamental law.

Since our admission into the Union, Utah has been under the same national party system that prevails in other states. Under their constitutional privileges women have participated on an equality with men in all regular political functions, such for instance as committee

organizations, primaries, conventions, campaign work, and elections. Some have occupied seats in the legislature, but that practice is losing favor. While the results are not in form for statistical presentation, the public mind on the subject is sharply defined and self-evident. There does not appear anywhere the faintest symptom of a belief that the women of Utah will ever be deprived of their elective franchise.

When we come to practical results we find them very much more indeterminate than are opinions and theories. In municipal affairs, for instance, the tendency of spoilsmen in public service seems to be about as corrupt as ever. Nevertheless the theory is sound, and is maintained with firmness, that whatever independent influence woman may exert as a voter must in the nature of things be in the direction of good government.

Allied to this question is one touching the relative individuality of the sexes. In the preparation of this article many prominent men have been consulted, and somewhat to my surprise the belief proved to be general, that in households containing adult children of both sexes, while the tendency is for the group to vote as a unit, in case of a departure from this rule, the dissenting voter is more likely to be found among the female than among the male members. And yet the chief fault which the party promoters find with the woman vote is that women do not turn out at elections with an interest proportionate to their voting strength. It is estimated that the relative vote with respect to sex has never been more favorable to the women than three to five. This is about the complexion of the primaries. In the conventions the female representation is not greater than one-tenth. But there seems to be no doubt that political interest among the women is steadily growing.

The question has been asked by many students of the subject: Does the wife vote her husband's ticket? The answer is, that she probably does when he does not vote hers, and it is almost as likely to be one way as the other, the family influences being of a reciprocal character. But the people of Utah do not generally regard that feature as an objection to woman suffrage. They hold that the interest of a family in the maintenance of good government is far greater than that of an unmarried person, and that it is entitled to an advantage at elections.

Idaho.—*Woman Suffrage and Municipal Politics.*¹ The right of suffrage was extended to the women of Idaho in 1896 by a vote of 12,126 to 6,282. As over 10,000 electors failed to vote for or against the constitutional amendment, the Board of Canvassers declared that

¹ Contributed by Ida M. Weaver, Boise City.

the amendment had failed of ratification by a majority of the electors. Upon appeal to the Supreme Court, it was decided unanimously that the amendment had been adopted, the silence of the 10,000 voters being construed as assent. At the first election following the enfranchisement of women three women were elected to the legislature, one each from the republican, populist and silver republican parties, and a woman, the present incumbent, was made State Superintendent of Schools. Many local offices were filled by women, notably the county superintendentship of schools. During campaigns women's political clubs establish headquarters and keep a close watch on the registrar's books, and facilitate by every practicable legitimate means the registration of women voters.

The effect of equal suffrage upon municipal politics was characterized as follows in a recent letter from the chief justice of Idaho to the writer: "It has made all political parties more careful in the selection of candidates for office, especially the more important county offices, it being generally recognized as a fact that women will not support dishonest or corrupt men or women for office."

Philadelphia.—*The Voters' Union* of the twenty-seventh division, Twenty-second Ward, City of Philadelphia, was organized in September, 1901, with these objects: The arousing of interest in the proper exercise of the ballot; the dissemination of information in regard to candidates, party meetings and primary elections; the publication of election returns; the publication of extracts from the election laws and rules of the various parties; the improvement in every way possible of the conditions surrounding the holding of elections, primary and general. It is a home organization, with the field of its activities a single election district, and with no outside alliances. It does not endorse candidates, except as to the regularity of their nominations.

The information which is furnished about candidates consists of facts only, nothing editorial. Name, age, residence, occupation, political connections past and present, record as an officeholder, if any, and a photograph are all easily obtained, and go a long way in placing a candidate properly in the scale of fitness for any office to which he aspires. This information is furnished voters about candidates for ward, township and division offices before the elections, both primary and general. It is upon these minor offices, to which the newspapers give little or no attention, that the greatest stress is laid. One important branch of the work is the holding up to their full duty the officers conducting elections, primary and general.

All voters of the division are eligible to membership. It requires a majority vote of the executive committee, however, to elect. No one

is elected to membership until he has expressed a resolution to attend each year, for a period of five years, the two general elections; and, further, if he belong to a party, the primary elections and other regular meetings called for in the rules of that party. The rules of the Republican party call for attendance at the polls seven times a year. Out of over 300 Republican voters less than ten fulfilled these obligations last year. It is understood that members who, by reason of sickness or unavoidable absence from their homes, or from other cause, are unable to exercise these duties at any time will advise the secretary, if possible, before the date of the meeting or election which they do not expect to attend.

The work is conducted by an executive committee of seven, elected at the annual meeting. They fill vacancies in their own body. There are no dues and the expenses are borne by voluntary contributions. An officer becoming a candidate for public office ceases to hold his office in the Voters' Union.

During the recent campaign personal letters were sent to every voter in the division who did not vote at the previous election. A stronger personal letter was sent to those who did not vote at the two previous elections. Notices to pay poll tax, miniature sample ballots, and other information about the election were sent to every voter. The morning after the election a detailed statement of the vote in the division was sent to every voter. The result of the work was shown by an 83 per cent vote. At four of the preceding six elections the vote was 40 per cent, at one of them 60 per cent, and at another (the last presidential election) 78 per cent. A twenty-four page hand-book, giving digests of the rules of the Republican and Democratic parties, a list of election offices, with present incumbents, election statistics, a list of voters in the division, a political roster for the year 1902, etc., is now in press. Every effort has been made to do the printing in an attractive though not expensive way. Work for the spring campaign began the day after the last election.

Cincinnati.—Refunding; Special Legislation.¹ At the recent November election the electors of the city by a vote of two to one authorized the trustees of the Cincinnati Southern Railroad (Cincinnati to Chattanooga, Tenn., 335 miles) to extend the present lease now held by the Cincinnati, New Orleans and Texas Pacific Railroad Company, for a period of sixty years, beginning July 1, 1906, at a rental of \$1,050,000 per annum during the first twenty years, \$1,100,000 during the second period of twenty years, and \$1,200,000 per annum during the third period of twenty years. The existing lease, yielding

¹ Contributed by Max B. May.

\$1,250,000 per annum, does not expire until July 1, 1906. Rent of \$1,050,000 per annum will be paid annually; the remaining \$200,000 per annum will be paid at the rate of \$40,000 per annum in quarterly installments of \$10,000 each until paid; deferred payments bearing three per cent interest. The lessee will build terminal facilities at an expense of \$2,500,000, authority being granted at the election to issue bonds of the city for that purpose. The lessee must provide for the interest and redemption of these bonds. The great advantage to the city in the extension of the lease is the opportunity of refunding outstanding railroad bonds bearing a high rate of interest at a much lower interest. When the bonds were originally issued the rate was 7 3-10 per cent, 7 per cent, 6½ per cent and 5 per cent; it is now confidently expected that as these bonds mature they can be refunded at a rate not exceeding 3½ per cent.

The election in other respects was uneventful. The success of the Republicans throughout the state is not propitious for the new municipal code which will be submitted to the legislature in January, 1902.

The new legislature will be called upon to meet the important question of uniform classification of cities. Within the past few months the supreme court of the state has declared unconstitutional many laws especially drawn to meet local conditions. Many improvements contemplated are necessary and imperative, therefore unless a new constitutional classification of cities can be provided, great inconvenience will result.

San Francisco.—*The Charter of 1900.*¹ The new charter of the city and county of San Francisco went into full effect in January, 1900, under a body of officials elected in accordance with its provisions. From the municipal reports for the first year of the new régime, from observation of its general workings, and from conference with representative men of the city, it is possible to form a fairly accurate judgment of the relative merits of the existing order. Even with all the imperfections which have been brought out by experience, the charter is undoubtedly working well. Those who criticise most severely the men and measures of this first administration under its provisions, admit that the present is a great improvement over any previous government in almost every particular. Barring some friction in the Board of Police Commissioners over the election of a chief of police, which resulted in the removal of one of the members, the new machinery has worked without serious difficulty and with no more considerable scandals than those originating mainly in the offices of the personal and partisan press.

Civil Service. The operation of the sweeping and stringent pro-

¹ Contributed by Professor Kendric Charles Babcock, University of California.

visions of the charter relating to the civil service has been both disappointing and gratifying. The enemies of the reform, aided by the over-zealousness of the Civil Service Commission in the application of their rules to places already filled, soon took the matter into the state courts. Five distinct suits were begun, and every effort made to overthrow "objectionable provisions." Last spring the Supreme Court handed down two decisions: one affirmed unanimously the validity of the municipal merit system, the other decided by a bare majority of the court that the civil service provisions of the charter could not be applied to county offices like those of sheriff, assessor, recorder, and county clerk, which were regulated by general state law. The two systems will thus have a fair trial side by side in the same city hall. Somewhat more than three hundred out of the sixteen hundred positions put by the charter under municipal civil service, are now filled by appointees from the commission's eligible list. All the evidence thus far gives the advocates of the merit system much satisfaction.

Bond Issue. Just before the charter went into effect, the people of the city voted to issue \$11,000,000 of bonds for a new sewer system, new hospital, new school buildings, and an extensive enlargement of the park system. As the city had practically no funded debt at all, this was not venturing out any great distance upon the dangerous sea of debt. But here again the Supreme Court was appealed to, and decided that the method by which the bonds were voted, was illegal, being in accordance with an act of 1889 which, so far as San Francisco was concerned, had been superseded by the different method provided by the charter which went into effect after the bond election, but before the bonds could be issued. No other bond election has been held, therefore the much-needed improvements must wait.

Initiative. One experience with the radical provision of the charter providing for initiative and referendum, is decidedly instructive. For climatic and other reasons, San Francisco is afflicted with year-round racing and coursing, and a very large number of persons is more or less interested in gambling on these races. The Board of Supervisors refused to pass an ordinance legalizing pool-selling in the downtown districts. The pool-sellers thereupon proposed to the people, by petition, with the required number of signatures, an ordinance giving the desired privileges, and it was only by most vigorous agitation through mass meetings and the press, that the proposed ordinance was defeated at the November election by the decisive majority of three thousand. This is the only instance where the initiative has been tried here, and it is not likely to be used again immediately.

Buenos Aires.—*Municipal Statistics.* There are in the United States many cities that publish readable and clear statements of municipal conditions. There are many other large cities which do not seem to appreciate the importance of instructing citizens in the details of administration. It may be of interest to cite here the *Monthly Bulletin of Municipal Statistics* of the city of Buenos Aires. It contains six double pages, in which are found the following: I. *Meteorological Observations.* II. *Movement of Population:* hospitals and homes, lunatic asylums, registry of prostitutes, hospital movement, crematory, night shelters; demography—births, marriages and deaths, according to age, cause and sex; deaths, according to nationality, condition, sex; epidemics and tubercular diseases by district and by house, whether private, tenement or public establishment. Articles of food received by 35 markets and 596 butchers' shops, and result of inspection of foods, water supply, bakers' shops; police and prison statistics with cause for commitment are stated.

Under *Economy* are given by parishes the properties sold, their areas in thousand square feet, the value of sales in paper dollars, and the average value in dollars per one thousand square feet of ground; by parishes also the real estate mortgaged, area and value. Venders and purchasers are given by nationality as are mortgagers and mortgagees, together with amounts of mortgages bought and sold. The value of gold and the rates of exchange, together with proceedings of stock exchange, trade marks registered and patents are given.

Under *Locomotion*, statistics appear with reference to horse and electric traction according to the company in control; the number of companies, engines, coaches, cars, passengers and mileage; also municipal licenses granted on various vehicles from private coaches to hand carts.

Under *Sundries* are facts of interest with regard to licenses granted for dogs, pistol shootings, bicycle riding, magic lanterns, gondolas, etc.; dispatches sent and received by telegraph, telephone and messenger service; details as to races, ball courts, theatres, libraries, loans and savings at Municipal Savings Bank and Mont de Piété; postal traffic and parcels post; education, drainage, garbage plants, incinerators, street sweepings, irrigation and municipal inspection. It appears that the population of Buenos Aires was on January 31, 1901, 824,158.

II. SOCIOLOGY.

National Prison Congress.—The thirtieth annual meeting of the National Prison Congress met at Kansas City, October 9-13. The central idea of the congress has been that punishment should be reformatory and not vindictive, and to accomplish this end it has advocated the indeterminate sentence, parole laws, the classification and segregation of classes upon the basis of degree of criminality, a separation of the criminal insane and imbecile, and has favored the adoption of the Bertillon system of measurements to identify criminals.

Subjects relating to most of these features were discussed in this congress. The separation of the imbecile and insane was advocated especially with reference to cases where expert judgment would be necessary to detect imbecility and insanity. The unreasonableness of treating such people as those who are fully accountable for their acts was pointed out.

The restrictions placed upon prison management by legislatures owing to the imaginary evils of competition of convict with other labor were condemned as injurious to the interests both of prison reform and the taxpayers. The paper by Dr. Smith, of St. Paul, on the psychological aspect of crime was interesting as a denial of the physical basis of crime. Perhaps the most interesting as well as the most scientific paper of the congress was read by Mr. Brockway, of the Elmira Reformatory, on the prevention of crime. The removal of crime was considered impossible. The social reaction against crime to preserve order is inevitable. All progress was described as a product of activities born of conflict, and opposition to crime as but a phase of the common struggle of humanity for existence and growth. The causes producing crime were grouped under two heads: 1. Defective human beings ill-adapted to the existing social order; and 2, faults of the social order. In the latter case, society has much to do in removing the weak from temptation. The keynote of this address as well as the sentiment of the congress was expressed in the following sentence: "The state would profit in restraint of crime if the sinful estimate of offenders could be eliminated from the statutes and from our attitude as well, leaving only to impel and guide all efforts the principle of defenses."

The discordant note of the congress was sounded by Mr. Felton, of the police department of Chicago. In his address he claimed that crime is increasing, that new crimes are being introduced, that criminals are becoming more shrewd, and that the moral standards of communities are being lowered. He opposed the indeterminate sentence

and the parole system, and favored harsher laws dealing with criminals. These views were shared by other members of police departments.

The difference in point of view is interesting when viewed in the light of representation of different camps. Members of police departments deal with criminals while their criminal propensities are being exercised; the wardens and others connected with reformatory institutions, on the other hand, deal with them while under definite control.

Before adjourning the congress passed resolutions urging Congress to enact both general parole and indeterminate sentence laws.

The Italians of Columbus—A Study in Population.¹—The Italian element in the United States is yearly increasing at an enormous rate. Italy is to-day sending more immigrants to this country than is any other foreign nation. In 1860 there were but 10,518 Italians in the United States, to-day there are about 950,000. The United States census statistics show about 1,879 Italian immigrants in the decade 1841-1850 against 307,309 in the decade 1881-1890, and 658,811 in the decade 1891-1900. Of our total immigration during the statistical year ending June 30, 1901, 24.5 per cent was from Italy; during the year 1900, 20.1 per cent; 1899, 24.8 per cent; 1898, 25.5 per cent; 1897, 21.3 per cent; 1896, 19.8 per cent; 1895, 13.2 per cent; 1894, 13.9 per cent; 1893, 14.4 per cent; 1892, 9.9 per cent; and in 1891, 13.5 per cent.

The vast majority of Italian immigration is from southern Italy, which also supplies the worst elements. The arrival of such a race upon our shores in ever-increasing numbers makes it important to inquire into their condition and their ability to become good and intelligent citizens of the United States. The materials for this study are drawn, not from the overcrowded tenements of New York or Chicago, but from an examination of the condition of the Italians in Columbus, the capital of Ohio, a city with a population of about one hundred and fifty thousand. The Italians in Columbus number about eleven hundred. This number is increasing at the rate of about one family per month. Representatives may be found from almost every province in Italy, but the majority have come from Sicily or Campania. Four-fifths of all the Italians in Columbus claim to have come from Sicily and Naples and about one-fifth from all the other provinces combined. Of this one-fifth the greater number are from Calabria, next from Tuscany, Genoa and Rome. The writer has been

¹ Contributed by Grace Leonore Pitts, Fellow in Economics and Sociology, Ohio State University.

unable to find any Italians in the city who are from northern Italy proper.

When asked why they have come to this country the most frequent reply is, "To make money." Every one has said that he had friends or relatives over here before he came, and had been told by these that both work and money were plentiful. A few have come here to escape military service. In Italy the eldest son, and after that every second son, must serve three years in the army or four years in the navy.

Many of the Italians have mortgaged their farms and homes to come here. In many instances the head of the family has come first and in one or two years has sent for his wife and children. With the exception of about one hundred Italians at the stone quarries, three miles west of the city, almost all of the Italians have their families with them. Few of those who have settled in Columbus have any intention of going back to the old country to live. Last year four families returned to Italy with the intention of remaining, but they were not contented and are to-day back in Columbus. The Italians in the city, especially the Sicilians and Neapolitans, are more or less closely related one to another, and this is another tie to bind them to this country. Sooner or later the Italian becomes a naturalized citizen of the United States, but he cares very little for politics. He makes a quiet, law-abiding citizen.

The Italians have chosen their homes in Columbus according to the sociological law of association. They are clannish and live close together. In one square eleven families may be found living in five small houses. The houses usually consist of five small rooms, with perhaps a shed kitchen. In one of these houses of five rooms there are three families, containing twenty-three members: one boarder, one family with six children and two families with five children each.

The Italians, especially the Sicilians, dislike to pay much for house rent. Three dollars a month for one family seems to them an extravagant amount. This explains the doubling up in the houses. Although living crowded together almost every house contains one good room, with lace curtains, which is used for a parlor and bedroom and is often on the second floor.

To save rent one Italian groceryman uses the front room of the house for a store. It is so crowded with merchandise that when a few extra orange crates are placed in the centre of the floor there is scarcely standing room and the odors must remind one of sunny Italy itself. There are four rooms in this house besides the one used for the store. One of them is rented for \$3.00 a month to a male boarder who takes care of it himself. The other three are used by the storekeeper

as a home for himself and family of six. The middle room downstairs is used as parlor and bedroom for the father, mother and baby, and the back room serves as dining room and kitchen. The four boys sleep in the remaining room upstairs. The house rents for \$10.00 a month, thus leaving but \$7.00 paid for store and house rent.

So many live in small quarters because they intend to return to Italy, and every economy in rent, in furniture, etc., shortens the time when they will have enough to return. As they become adapted to American life they abandon the idea of going back and separate, living one family in a house. If the old people do not do this their children do so when they grow up and marry. There is revealed here a slow but steady progress toward a higher standard of living.

The Italians living outside of the chief settlement are not Sicilians. They are chiefly policemen and laborers in the railroad yards. They have just about as many children and as untidy ones as the Sicilians but their standard of living is somewhat higher. Besides these there are a few families scattered over the city, especially those who live near their place of business, as the saloon keepers. Those that are scattered speak the English language and consider themselves Americans rather than Italians.

At the Marble Cliff Stone Quarries (three miles west of the city) there are about one hundred Italians; but few of these are married and those that are live in little frame shanties. Many of the single men live at the "Italian Club." Each man does his own cooking and housework. Some of the men have separate rooms but the majority room together. Here each man has a single cot. In some cases white blankets with red or blue borders are used and lace curtains serve for spreads. In these rooms (examined while the men were at work) everything was neat and orderly; the clothing was hung up and in many cases efforts toward the artistic were visible. Pictures of Saints adorned the rough plank walls, towels with the owner's name embroidered in large red letters were hanging upon the rack, and newspapers cut out in fancy scallops covered the wooden shelves. The back rooms downstairs are used as kitchens and dining rooms. Each man does his own cooking and pays \$1.00 a month for rent.

Very few of the Italians intermarry with other nationalities. There are not more than twenty instances of such in the city and these have been mostly of Italian men with German or Irish girls. The majority of such cases of intermarriage have been among the saloon keepers who are located in various parts of the city and come into closer contact with other peoples than any of the other Italians. Thus bonds of sympathy, other than those of nationality, have formed these unions.

The men who came to America unmarried have usually returned to Italy for a bride or have married Italian girls who were in this country. The Italians retain in this country their native custom of giving each daughter a dowry of from three to four hundred dollars. In large families there are sometimes three or four daughters to be provided for and this means about a thousand dollars, a very large sum for a poor man.

It is almost impossible for the old people to adopt American ways, but their children as they grow up and learn the English language and associate with American children soon begin to imitate them and in time the Italian is assimilated although not as rapidly as the German or Irishman.

The occupations of the Italians in Columbus may be grouped as follows:

1. Manufacturing.
 - (a) Show Case and Bar Manufacture Company 1
2. Trade.
 - (a) Commission house 1
 - (b) Saloons 20
 - (c) Groceries 2
 - (d) Fruit venders 50
 - (e) Hucksters 6
 - (f) Railroad laborers 50
3. Agriculture and Mining.
 - (a) Laborers at stone quarries 100
 - (b) Small truck farmers 5
4. Public Service.
 - (a) Policemen 3
 - (b) Firemen 3
 - (c) Laborers on public works Very few.
5. Professional.
 - (a) Professor of the harp 1
 - (b) Priest 1
 - (c) Organ grinders 20

The Italians engage in only the most primitive industries. The grocery stores are very inferior and are patronized only by the Italian and the colored. They are so small, dirty and overloaded with fruit crates that it is almost impossible for three people to find standing room in the centre of the store. There are about twenty Italian saloons in the city. These are not owned by the Sicilian element, but by those who have come from the provinces further north. These men have

accumulated large sums of money and some of them have invested in property in this city.

The fruit venders are for the most part Sicilians. This seems to be their peculiar occupation. The profits to be made in the fruit business are uncertain. Some days they lose money, others they barely meet expenses, and on others they make as high as \$20 and \$30. Almost all of these Sicilians own their own horses and wagons, and in telling how much profit they make they never fail to deduct the expense of keeping the horse. Their stable is usually a shed in the back yard. In the summer time a few of these hire farms and raise green vegetables for the market. They live in the city and go out to the farm during the day. Their wives or sons take their place upon the market. One Italian woman sells as high as \$80 worth of fruit and vegetables in one day.

Another occupation that belongs especially to the Italian is the playing of street pianos. These Italians usually travel in twos from city to city. There are only one or two who make Columbus their permanent home. The majority of these travel for a Pittsburg company and receive about \$1.50 a day.

The only place where there is real competition between the Italians and other nationalities is in the work at the stone quarries and on the railroads. The Italians in Columbus do not work under the padrone system, neither do they work for less wages than any other nationality. At the stone quarries their wages range from seventy-five cents per day for water boys to \$2 for the blacksmith. They do a simple kind of work, but they do it because they are needed. The Taylor Bell Stone Quarry Company aims to have 40 per cent of their laborers Italian, as they are the most reliable wage-earners that they can hire.

Many people claim that the wage-earners of other nationalities suffer from competition with the Italians owing to their low standard of living. It has been shown that this is not true in Columbus. Neither is their standard of living so low as many think. They do not care as much for meat as other peoples do, as they are not accustomed to it in Italy. They seldom have beef or veal (they do not care for pork at all) more than two or three times a week. Many of the Sicilians were fishermen in the old country and they still retain their love for salt water fish. Regularly three times a week the Italian grocery on Third Street receives from Boston a large barrel of fish, usually mackerel and bass. These they cook in olive oil. They are also fond of fowls and eggs. In place of meats they also use vegetable soups, especially bean, tomato and macaroni. As luxuries they use green vegetables, sardines, artichokes and olives. In cooking they use a great deal of lard and olive oil, garlic and very little milk.

For beverages they usually use coffee for breakfast and wine for dinner and supper. Some of them make their own wine from the pure juice of grapes. The greater part of their wine is sent here from California and costs about thirty-five cents per gallon. As a substitute for wine they often use beer, but either beverage is used moderately. The greatest economy among the Italians is in house rent.

The Italians have many good qualities and improve them as opportunities arise. They are a hard-working, industrious, temperate and frugal people. At no time has there ever been an Italian in the county infirmary. If the first generation cannot become assimilated with the American people the second or third will. Every symptom points toward this, although the Italian is too new an element in our population to have proved this conclusively.

III. NOTES ON COLONIES AND COLONIAL GOVERNMENT.

The New Tax Decision.—Attention has already been called in the ANNALS to the recent decisions of the Supreme Court dealing with the constitutionality of the taxes imposed on articles imported from Porto Rico. Since the treaty with Spain, and since the passage of the Foraker Act of April 12, 1900, respectively, the power of Congress to levy a tax on articles imported from the new possessions into the United States was well settled by these decisions. In the Diamond Rings case, decided on December 2, 1901, a somewhat different question was involved, namely, Were the Philippines a foreign country in the language of the Dingley Act, which levied duties upon goods "imported from foreign countries"? Emile J. Pepke, a soldier returning from the Philippines in January, 1899, brought with him fourteen diamond rings, which were seized by the customs authorities at Chicago on the ground that duty had not been paid. Pepke maintained that the Philippines were not a foreign country subsequent to the treaty of peace. The court upheld this view, declaring that the point involved was not substantially different from that decided in *De Lima v. Bidwell*, a Porto Rican case. This confirmation of the doctrine announced in the *De Lima* case may be said to place the status of the new territories and ceded districts in a clear light. By the treaty of cession the Philippines ceased to be foreign country, in spite of the resolution passed by the Senate after the ratification of the treaty, a resolution declaring "that by the ratification of the treaty of peace with Spain it is not intended to incorporate the inhabitants of the Philippine Islands into citizenship of the United States, nor is it intended to permanently annex said islands as an integral part of the territory of the United States; but it is the intention of the United States to establish on said islands a government suitable to the wants and conditions of the inhabitants of said islands, to prepare them for local self-government, and in due time to make such disposition of said islands as will best promote the interests of the United States and the inhabitants of said islands." The court declares that this resolution "is absolutely without legal significance on the question before us. The meaning of the treaty cannot be controlled by subsequent explanations by some of those who may have voted to ratify it." The court rejects the contention made by the representatives of the government that the armed resistance of the native inhabitants of the Philippines created a distinction between the Philippines and Porto Rico. "We must decline to assume that the government wishes thus to disparage the title of the United States, or to place itself in the

position of waging a war of conquest. . . . We do not understand that it is claimed that in carrying on the pending hostilities the government is seeking to subjugate the people of a foreign country, but, on the contrary, that it is preserving order and suppressing insurrection in territory of the United States."

An interesting result of the great divergence of opinion existing among the Justices of the Supreme Court is seen in the contention of the legal representatives of the United States in the suit that the ruling in *De Lima v. Bidwell* should not be given full weight as a precedent, because one of the five Justices making up the majority of the court in that decision also concurred in the *Downes v. Bidwell* decision, which affirmed the constitutionality of the Congressional act taxing goods imported into the United States from Porto Rico, while the other four members of the majority in the *De Lima* case dissented from the ruling in the *Downes* case. In its recent decision the Supreme Court declares that this fact by no means invalidates or detracts from the weight of the *De Lima* decision.

At the same time the court handed down an opinion in another action brought by Henry W. Dooley, of San Juan, Porto Rico, to recover duties paid upon merchandise imported into Porto Rico from the United States since the passage of the Foraker Act on the ground that the duties levied were unconstitutional, being in violation of Article I, Section 9, of the Constitution: "No tax or duty shall be laid on articles exported from any state." The decision turned upon the question, Is a tax on articles imported into Porto Rico from the United States in reality a tax upon exports from any state in the meaning of the Constitution? The court holds that such duties were taxes levied upon imports into Porto Rico rather than upon exports from the United States. "Now, while an import into one port almost necessarily involves a prior export from another, still, in determining the character of the taxed imports, it is important to consider whether the duty be laid for the purpose of adding to the revenues of the country from which the export takes place or for the benefit of the territory into which they are imported." Applying this test it is found that the duties were levied solely for the benefit of Porto Rico.

The more important decisions thus far rendered, on the taxation of imports to and from the new dependencies, may be thus summarized:

First—Previous to the signing of the treaty of peace, and while a district is in the possession of the military arm of the government, the restrictions of the Constitution in general do not apply, and the territory is for all practical intents and purposes part of a foreign country.

Second.—After the treaty of peace providing for the cession of the

territory to the United States, and previous to legislation on the subject by Congress, the territory may not be regarded as foreign in the sense of our customs laws, therefore import duties levied on "goods coming from foreign countries" do not apply to imports from such territories or districts.

Third.—Congress may, however, by legislation, levy duties on goods coming from such territories.

Fourth.—Such duties levied by Congress need not be uniform.

Fifth.—Congress or the legislature of the territory may by law levy duties upon articles imported into the territory from the United States without violating the constitutional prohibition against duties on goods exported from the United States.

Proposed Changes in German Colonial Government.—In a previous number of the ANNALS a brief summary of German colonial conditions was given, showing that the character of the government lacked entirely any element of representation from the side of the colonies. Considerable discussion has recently been excited in Germany by the proposals of Professor Hans Meyer in reference to the further development of the German colonial system. Professor Meyer has made a study of the French and English colonial finances and finds that in England especially, and recently also in France, the practice has been adopted of introducing at the earliest possible moment an independent budget for each colony, so that receipts and expenditures shall be balanced. This practice he contrasts with the German policy of making considerable appropriations from the imperial budget to the African colonies. Professor Meyer also suggests that colonial councils, composed of prominent colonists, should be established for the purpose of advising the central government and as a basis for the development of local self-government in later years. Briefly summarized, the more important points of the plan or program proposed are as follows:

First.—For each dependency an advisory body should be provided to assist the governor. This council should be not only an advisory body, but for important matters affecting the dependency should be given powers of decision. Where possible a part at least of the council should be elected by the German citizens in the colony.

Second.—The system of local communal councils for advisory and other purposes, which has already been established in East Africa, should be extended to other dependencies.

Third.—The governor and council should constitute a legislative body, which should have the power to determine all financial matters connected with the local administration of the dependency.

Fourth.—Colonial expenses should be determined by receipts, the

colonial budget being drawn up by the governor and council subject to the approval of the home government. No purely colonial expenditures should be undertaken by the imperial government; the responsibility of the latter should be limited to undertakings of a nature affecting the empire.

Fifth.—The colonies should retain a common agency in Germany, for the purpose of making contracts for public works, superintending the purchase of material needed in the colonies, etc., after the English fashion.

These proposals, which originally appeared in an article published in the *Tägliche Rundschau*, have especially attracted the attention of the German Colonial Society, and are being eagerly discussed by the colonial experts in the *Deutsche Kolonial Zeitung*, the official organ of the society.